CURRICULUM VITAE

PERSONAL DATA

Family name: Rodríguez Arellano

First name: José Julio

Address:

Prof. Dr. José Julio Rodríguez Arellano (BSc, MSc, PhD)
Full Tenure Professor
Functional Neuroanatomy Group (Lab L-4)
Biocruces Health Research Institute
Basque Foundation for Science (IKERBASQUE)
Department of Neuroscience
Faculty of Medicine and Odontology
University of the Basque Country UPV/EHU
Plaza de Cruces 12, 48903-Barakaldo
Bizkaia, Spain
E-mail: j.rodriguez-arellano@ikerbasque.org

ACADEMIC BACKGROUND & RESEARCH DIRECTIVES

Academic Background and expertise- My academic background includes a B.Sc Honours Degree in Biological Sciences and a Ph.D degree "cum laude" in Neurobiology from the Universidad Complutense de Madrid (Spain). Post-doctoral research experience has been gained in structural and ultrastructural neuroanatomy, immunocytochemistry, quantitative neuroanatomy, neuropharmacology, and experimental neurology as well as most recently in electrophysiology in anaesthetized and awake rats. I have also acquired an important insight into drug development, specifically CNS-targeted drugs, from scientific positions in pharmaceutical companies during part of my post-doctoral period.
My previous and current teaching commitments are in neurosciences, neuroanatomy, anatomy, physiology and pharmacology, all at under- and post-graduate teaching levels, including PBL for medical students. I actively participate in the supervision of graduate, M.Sc and Ph.D research projects.
My experience convinces me of the necessity for an interdisciplinary approach to the teaching of contemporary biological, biomedical, and anatomical sciences as well as neuroscience at all levels of education and research, allowing a better understanding of systems integration in human health and more specifically within the nervous system.

Research Directives- Our current research interests are centred on the neuroanatomy and functional connectivity of neural circuits in the context of memory-related plasticity under normal and pathological conditions such as neurodegeneration and more specifically Alzheimer´s Disease (AD), but also paying attention to other neurological processes (depression, epilepsy and stress). These studies are carried out using both *in vivo* and *in vitro* approaches. Actually we are focused on the investigations of neurogenesis, neuronal-glial communication and plasticity in neuronal-glial networks as well as the serotonergic and glutamatergic neurotransmitter systems in normal and pathological conditions, including AD, by using transgenic models. The latter offer the unique possibility to study pathological brain plasticity upon different environmental and/or pharmacological treatment. We concentrate on pathology-related changes in various transmitter systems, associated with neurones and glia. In this sense we are designing series of *in vivo* experiments aimed at specific modification of these systems, by either functional (enriched environement, physical activity or dietary changes) or molecular biological (viral-based transfection with relevant signal-related molecules). These neuroanatomical and neurophysiological findings provide us with the structural evidence for understanding the pathological

plasticity in neuronal-glial networks and neurotrasnmitter systems providing a theoretical basis for the understanding of the disease progression and the development of new therapeutic strategies.
For these purposes, different experimental techniques including light and electron microscope immunohistochemistry, classical morphometry and stereology are used. More recently, the neuroanatomical techniques mentioned above have been combined with electrophysiology in order to more precisely define the morpho-functional basis of neuronal, glial and synaptic plasticity.

ACADEMIC TITLES

Ph.D. in Biological Sciences -Neurobiology- (Doctor en Ciencias Biológicas) by the Complutense's University of Madrid in June 1995. "Evolution of the basalocortical neuronal alterations in experimental models of Alzheimer´s disease". Cum Laude. .Directors: Dr. Adolfo Toledano Gasca & Dr. Luis Rivas Jara.

Licenciate with degree in Biological Sciences -MSc- (Licenciado con Grado en Ciencias Biológicas) by the Complutense's University of Madrid in February 1992. "Contributions to the histological study of the human lacrymal sac: normal aspects and dacryocystitis". Honours. Director: Dr. Luis Rivas Jara.

Licenciate in Biological Sciences –BSc- (Licenciado en Ciencias Biológicas) by the Complutense's University of Madrid in June 1991.

POSITIONS

Actual:

- 20th September 2022 to present: Scientific Advisor of SJT Molecular Research. Alava, Spain.

- 1st September 2009 to present: Professor in Neuroscience (Tenure) in IKERBASQUE (Basque Foundation for Science) and since 9th April 2018 Head of the Functional Neuroanatomy Group at the BIOCRUCES Health Institute, and associated to the Department of Neuroscience at the Faculty of Medicine and Odontology at the University of the Basque Country UPV/EHU, Barakaldo, Bilbao, Spain.

- 1st January 2010 to present: Honorary Professor in the Faculty of Life Sciences at the University of Manchester. Manchester, UK.

Past:

- April 2012 to 8th March 2018: Head of the Functional Neuroanatomy Group at the Achúcarro Basque Center for Neuroscience, in Leioa, Bilbao, Spain.

- 15th July 2011 to December 2013: Responsible of Neurodegenerative Diseases (as external collaborator) in BIODONOSTIA Health Research Institute. San Sebastian. Spain.

- 15th January 2008 to December 2013: Scientific Consultant Professor in the Institute of Experimental Medicine at the Academy of Sciences of the Czech Republic. Prague. Czech Republic.

- 19th September 2005 to 31st December 2009: Lecturer in Neurosciences (Tenure) in the Faculty of Life Sciences at the University of Manchester. Manchester, UK.

- 1st March 2008 to 31st December 2009: Program Director of Anatomical Sciences in the Faculty of Life Sciences at the University of Manchester. Manchester, UK.

- 1st January 2004 to 30th November 2009: Associate Lecturer in the Department of Biological Sciences at The Open University. Milton Keynes, UK.

- 1st January 2004 to 18th September 2005: Research Fellow in the Department of Biological Sciences at The Open University. Milton Keynes, UK.

- 1st May 2003-31st December 2003: Assistant Scientist in the Center for Complex Systems and Brain Sciences at Florida Atlantic University. Boca Raton, FL, USA.

- 1st November 2001-31st April 2003: Research Fellow in the Department of Biological Sciences at The Open University. Milton Keynes, UK.

- 11th December 2000-30th June 2001: Head of the Neuropathology and Neuroregeneration Group in Starlab Barcelona S.L. Barcelona, Spain.

- 1st January 2000-10th December 2000: Research Associate in the Division of Neurobiology at the Department of Neurobiology and Neurosciences of Weill Medical College of Cornell University. (New York, NY, USA).

- 1st March 1999-31st December 1999: Post-doc in the Group of Pathology (Preclinical Safety, Tox/Path) of Novartis Pharma AG. Basel, Switzerland.

- 15th September 1997-28th February 1999: Post-doc in the Division of Neurobiology at the Department of Neurobiology and Neurosciences of the Cornell University Medical College. New York, NY, USA.

- 1st August 1995-31st July 1997: Post-doc in the INSERM U-259, Psychobiologie des Comportements Adaptatifs, Bordeaux University II. Bordeaux, France.

- 11th September 1994-31st July 1995 developing, in parallel with the post-doc position: Head of the Necropsy and Histology Team from the Pathology Group.

- 1st February 1994-31st July 1995: Post-doc in the Department of Electron Microscopy (Drug Safety/Toxicology) of Sandoz Pharma Ltd. Basel, Switzerland.

- 1st September 1993-31st December 1993: Head of the Histology Department of the I+D Section at Andrómacos' Laboratories. Madrid, Spain.

AWARDS

- **Invited Visiting Professor** in the School of Pharmacy at Kyushu University, Fukuoka. 9th January to 14th February 2014. Japan.
- **Invited Visiting Professor** in the School of Pharmacy at Kyushu University, Fukuoka. 1st to 30th November 2012. Japan.
- **Invited Visiting Professor** (Japan Society for the Promotion of Science) in the "Department of Anatomy and Neurobiology" Kyoto Prefectural University of Medicine Kawaramachi-Hirokoji. Kyoto, 13th July to 4th September 2009. Japan.
- **Invited Visiting Professor** in the "Center for Complex systems & Brain Sciences" Florida Atlantic University. Boca Raton, Fl. 12th August to 10th September 2006. USA.
- **Invited Visiting Professor** in the "Laboratoire de Neurobiologie des Réseaux" CNRS UMR 5816. University of Bordeaux 1. Bordeaux, 14th March to 8th April 2005. France.

GRANTS AWARDED

1. **Project Title:** Investigación de la eficacia farmacológica de ácidos grasos insaturados de diseño para el tratamiento de la enfermedad de Alzheimer. **Period** 2015 for 48 months. **Grant Holders:** Lipopharma, Medalchemi, UIB, UPV (**Prof. José J. Rodríguez Arellano)**, Praxis, UNAV. **Body:** Convocatoria RETOS 2015 for 48 months. **Amount:** 1,345,052€. **Prof. José J. Rodríguez Arellano Group allowance:** 102,749€.

2. **Project Title:** El papel de la neuroglia en la enfermedad de Alzheimer y su relevancia como "target" terapéutico. **Period** 2013 for 12months. **Grant Holder: Prof. José J. Rodríguez Arellano (PI)**, **Body:** Basque Government Industry Department, SAIOTEK Programme. **Amount:** 19,000€.

3. **Project Title:** Influencia del aprendizaje espacial en la integración morfológica de las neo-neuronas hipocampales: aplicación en la enfermedad de Alzheimer. **Period** 2012 for 24months. **Grant Holder: Prof. José J. Rodríguez Arellano (PI)**, **Body:** Basque Government Industry Department, SAIOTEK Programme. **Amount:** 18,000€.

4. **Project Title:** Potential of derived skin precursor cells in the treatment of Alzheimer´s disease. **Period:** 2012 for 36 months **Grant Holders: Prof. José J. Rodríguez Arellano (PI)**, **Body:** Basque Government Health Department. **Amount:** 22,250€.

5. **Project Title:** Estudio de las bases neurobiológicas de la depresión: Implicación de los canales GIRK en la transmisión serotonérgica central y en la neurogénesis **Period:** 2011 for 24 months **Grant Holders:** Dr. María Torrecilla, **Prof. José J. Rodríguez Arellano**, Dr. Dávila, Dr. Zumárraga. **Body:** Basque Government Industry Department, SAIOTEK Programme. **Amount:** 100,000€.

6. **Project Title:** Potential of mesenchymal stem cells in the treatment of Alzheimer's disease. **Period:** 2011 for 48 months **Grant Holders: Prof. José J. Rodríguez Arellano (PI)**, Prof. Sykova. **Body:** Czech Science Foundation. **Amount:** 220,000€.

7. **Project Title:** Glial involvement in Alzheimer's disease: from pathology to therapeutics. **Period:** 1/10/2010 for 36 months **Grant Holders: Prof. José J. Rodríguez Arellano (PI)**, Prof. Alexei Verkhratsky. **Body:** Spanish Ministry of Science and Innovation (Instituto de Salud Carlos III). **Amount:** 130.680€.

8. **Project Title:** The role of glia in Alzheimer's disease. **Period:** 1/8/2010 for 12 months. **Grant Holder: Prof. José J. Rodríguez Arellano (PI)**. **Body:** Basque Government (2010 Special Actions). **Amount:** 6,000€.

9. **Project Title:** Morphofunctional basis of the hypothalamic pontine regulation in REM sleep. **Period:** 1/12/2009 for 36 months **Grant Holders:** Dr. Miguel Garzón, **Prof. José J. Rodríguez Arellano**. **Body:** Spanish Ministry of Science and Innovation. **Amount:** 78,000€.

10. **Project Title:** Pathological potential of astroglia in Alzheimer disease. **Period:** 1/1/2009 for 36 months. **Grant Holders: Dr. José J. Rodríguez Arellano (PI),** Prof. Alexj Verkhratsky, Dr. Chvatal , Prof. Sykova **Awarding Body:** Grant Agency of the Czech Republic (GACR). **Amount:** 130,475€.

11. **Project Title:** Ultrastructure and regulation of adhesion at a genetically tractable model synapse. **Period:** 1/3/2007 for 36 months. **Grant Holders:** Dr. Andreas Prokop, **Dr. José J. Rodríguez Arellano**, Prof. Karl Kadler. **Awarding Body:** BBSRC. **Amount:** £434,323.

12. **Project Title:** Endoplasmic reticulum Ca2+ homeostasis in Alzheimer's disease. **Period:** 1/12/2004 for 48 months. **Grant Holders:** Prof. Alexj Verkhratsky, Dr. Stuart Allan, **Dr. José J. Rodríguez Arellano**. **Awarding Body:** Alzheimer's Research Trust. **Amount:** £320,359.

INVITED PROFESSOSHIPS AWARDED TO MY LABORATORY

1. **Prof. Robert Zorec** (Ikerbasque Visiting Professorship, 100%). Laboratory of Neuroendocrinology-, Molecular Cell Physiology, Institute of Pathophysiology, Faculty of Medicine,University of Ljubljana, 1000 Ljubljana, Slovenia. **Project Title:** The role of vesicular trafficking in astrocytes in the Alzheimer's disease model. **Period:** June 2012 for 12 months.

2. **Prof. Vladimir Parpura** (Ikerbasque Visiting Professorship, 100%). Department of Neurobiology, Center for Glial Biology in Medicine, Civitan International Research Center, Atomic Force Microscopy & Nanotechnology Laboratories, and Evelyn F. McKnight Brain Institute, University of Alabama, Birmingham, USA and School of Medicine, University of Split, 21000 Split, Croatia. **Project Title:** Gliotransmission in neurodegenerative diseases with specific emphasis on Alzheimer's disease and Amyotrophic lateral sclerosis. **Period:** Sept-Oct 2011 for 12 months.

3. **Prof. Alain Privat** (Ikerbasque Visiting Professorship, 50%). INSERM U1051, Pathophysiology and therapy of sensory and motor deficits, Institute for Neurosciences of Montpellier, Saint-Eloi Hospital, Montpellier,

France. **Project Title:** Serotonin in spinal cord pathologies affecting locomotion. **Period:** Sept-Oct 2010 for 12 months.

RESEARCH ACTIVITIES

i) Professor in Neurosciences at IKERBASQUE, Biocruces Bizkaia and in the Faculty of Medicine at The University of the Basque Country (UPV/EHU). September 2009 to present.
Research field: Neuronal and glial plasticity and interactions in the hippocampus and other memory related areas.
Main studies:
a) Neurogenesis and cell differentiation in Alzheimer's disease.
b) Glial Plasticity and Glia-Neuron Interactions in Alzheimer's disease
c) Structural and Ultrastructural analysis of the serotonergic system and its involvement in synaptic plasticity and neuropathology; by the use of light/electron microscopic immunohistochemistry, tracing and 3-D reconstruction.
d) Effect of supplementary diets in the progression and onset of Alzheimer´s disease.
e) Efficacy of Lipid and lipid derived treatments in Alzheimer´s disease.
f) Role of GIRK channels in neurogenesis and serotonin signalling as a depression target.
g) NG-2 Cells role and alteration in prion diseases.

i) Lecturer in Neurosciences in the Faculty of Life Sciences at The University of Manchester. September 2005 to December 2009.
Research field: Neuronal plasticity in the hippocampus and other memory related areas.
Main studies:
a) Structural and Ultrastructural analysis of the serotonin receptors expression and their involvement in synaptic plasticity; by the use of light/electron microscopic immunohistochemistry, tracing and 3-D reconstruction.
b) Neurogenesis and cell differentiation in Alzheimer's disease.
c) Supervision of 2 Post-doctoral Researchers associated with the 2 awarded grants:
Dr. Vicky Jones (full time in my Lab) - Alzheimer's Trust
Dr. Andre Reissaus (part time in my Lab) - BBSRC
d) Supervision of 3 Ph.D. Students: 1 BBSRC funded and 2 Self-funded.
Mr. Harun Noristani (BBSRC): "Changes in serotoninergic neurotransmission during the progression of Alzheimer's Disease".
Mr. Markel Olabarria (Self-funded): "The patophysiological role of astroglia in Alzheimer's Disease".
Mrs. Chia-Yu Yeh (Self-funded): "Astroglial changes in the entorhinal cortex during the progression of Alzheimer's Disease".

ii) Research Fellow and Associate Lecturer in the Department of Biological Sciences at The Open University. January 2004 to September 2005 (Associate Lecturer, to present). Director: Dr. Michael G. Stewart.
Research field: Neuronal plasticity in the hippocampus.
Main studies:
a)Ultrastructural analysis of receptor expression and synaptic plasticity, by the use of electron microscopic immunohistochemistry.

iii) Assistant Scientist in the Center for Complex Systems and Brain Sciences at Florida Atlantic University. May 2003 to December 2003. Supervisor: Dr. Robert P. Vertes.
Research field: Neuronal anatomy and organization of Thalamic/Hippocampal pathways.
Main studies:
a)Ultrastructural analysis of receptor expression, by the use of electron microscopic immunohistochemistry.
b) Study of immediate-early gene expression/changes following physiological stimulation, by the use of immunocytochemistry.

iv) Research Fellow in the Department of Biological Sciences at The Open University. November 2001 to April 2003. Director: Dr. Michael G. Stewart.
Research field: Neuronal plasticity in the hippocampus.
Main studies:

Ultrastructural analysis of receptor expression and synaptic plasticity, by the use of electron microscopic immunohistochemistry.

v) Head of the Neuropathology and Neuroregeneration Group at Starlab Barcelona S.L. December 2000 to June 2001.
Research field: Neuropathology and Neuroregeneration.

vi) Research Associate at the Division of Neurobiology in the Department of Neurobiology and Neurosciences of the Weill Medical College of Cornell University. January 2000 to December 2000. Director: Dr. Virginia M. Pickel.
Research field: Neuronal adaptation and plasticity in the striatum.
Main studies:
Ultrastructural analysis of receptor systems, by the use of electron microscopic immunohistochemistry.

vii) Post-doc at Novartis Pharma AG. March 1999 to December 1999. Director: Dr. Elias Perentes.
Research field: Cell proliferation and apoptosis.

viii) Post-doc at the Division of Neurobiology in the Department of Neurobiology and Neurosciences of The Cornell University Medical College. September 1997 to February 1999. Director: Dr. Virginia M. Pickel.
Research field: Neuronal adaptation and plasticity in the striatum.
Main studies:
Ultrastructural analysis of receptor systems after chronic administration of neuroleptics, by the use of electron microcopic immunohistochemistry.

ix) Post-doc at the INSERM U-259, Psychobiologie des Comportements Adaptatifs. August 1995 to July 1997. Director: Dr. Nora Abrous.
Research field: Intrastriatal dopaminergic transplants after dopaminergic lesion.
Main studies:
a) Study of immediate-early gene expression following the lesion and transplants by the use of immunocytochemistry and "in situ" hybridization after the administration of psychomotor stimulant drugs such as: amphetamine, cocaine and caffeine.
b) Morphological study of the different striatal neurons, before and after transplants.

x) Post-doc at Sandoz Pharma, Ltd. February 1994 to July 1995. Director: Dr.Maurice Cary and Dr. Elias Perentes.
Research field: Heat Shock Proteins expression.
Main studies:
a) Immunocytocytochemical localization (light and electron microscopy) of Heat Shock Proteins in human isolated neutrophils after Clozapine treatment (antipsychotic drug).
b) Study of the possible involvement of this HSPs expression in adverse side-effects: neutropenia.

xi) Head of the Histology Department of the I+D Section at Andromacos´ Laboratories. September 1993 to December 1993.
Research field: Morphological and Immunocytochemical study of the Immune System Organs.
Main Studies:
a) Light microscopy study of the changes and/or alterations appeared, mainly, in thymus, spleen and lymph nodes after treatment with several immunosupressor drugs in development.
b) Immunocytochemical characterization of the affected lymphocyte populations.
c) Comparative analysis with other immunosupressor drugs.

xii) Colaborator in the research program on aging and experimental Alzheimer. Supported by the Autonomic Comunity of Madrid and Education Ministry. October 1991 to January 1994. Director: Dr. Adolfo Toledano Gasca.
Research field: Morphological Study of involutive CNS.
Main studies:
a) Electron microscopical alterations of cerebellar and cerebral cortex in aging.
b) Electron microscopical cortical alterations after nucleus basalis magnocellularis lesions (experimental Alzheimer models).

xiii) Fellowship in the Histopathological Laboratory of the Ophthalmology Service at The Ramon y Cajal's Hospital (Spanish Social Security). November 1989 to January 1993. Director: Dr. Luis Rivas Jara.
Research field: Morphological study of ocular and visual system.
Main studies:
a) Human pathology in ocular diseases: impression cytology in ocular diseases; dacriocystitys and glaucoma.
b) Experimental pathology: experimental Glaucoma in rabbits and aging alteration in retina and visual cortex.

SPECIAL TECHNICS IN RESEARCH

1. Light Microscopy.
2. Electron Microscopy.
3. Histology and Cytology.
4. General and Special histochemistry (enzymohistochemistry, immunohistochemistry and Autoradiography).
5. Tracing.
6. Stereotaxical surgery.
7. Image analysis, densitometry, and stereology.
8. "In situ" hybridization.
9. Mammalian cell culture.

PUBLICATIONS IN JOURNALS

124. **J. J. Rodríguez**, S. Terzieva, C.Y. Yeh, E. Gardenal, F. Zallo, A. Verkhratsky and X. Busquets. "Astrocyte S100β expression and selective differentiation to GFAP and GS in the entorhinal cortex during ageing and in the 3xTg-Alzehimer´s disease mouse model". Frontiers in Ageing. Submitted. 2022

123. **J. J. Rodríguez**, S. Terzieva, C.Y. Yeh, E. Gardenal, F. Zallo, A. Verkhratsky and X. Busquets. "Neuroanatomical and morphometric study of S100β positive astrocytes in the entorhinal cortex during ageing in the 3xTg-Alzehimer´s disease mouse model". Neurobiol. Ageing. Submitted. 2022.

122. Francisco J. Alvarez, Hector Lafuente, William Hind, Antonia Alvarez, Enrique Hilario, **José. J. Rodríguez**. "Effects of Cannabidiol after bicuculline-induced seizures in epilectic-like rats". Epilepsia. Submitted. 2022.

121. Francisco J. Alvarez, Antonia A. Alvarez, **José. J. Rodríguez**, Hector Lafuente, M. Josune Canduela, William Hind, José L. Blanco-Bruned, Daniel Alonso-Alconada and Enrique Hilario. "Effects of Cannabidiol, hypothermia and their combination in rats with hypoxic-ischemic encephalopathy". J. Neuroscience. Submitted. 2022.

120. Aurora Arrue, Olga Olivas, Leire Erkoreka, Ainara Arnaiz Noemí Varela, Mª Teresa Moreno-Calle, Estibaliz Gordo, Elena Marín-Guardamino, Javier García-Cano, **José Julio Rodríguez**, Estela Saez, Miguel Angel Gonzalez-Torres, Mercedes Zumarraga, Nieves Basterreche. "Multilocus genetic profile reflecting low dopaminergic signaling is directly associated with obesity and cardio-metabolic alterations due to antipsychotic treatment". Progress in Neuropsychopharmacology & Biological Psychiatry. Submitted 2022.

119. A. Toledano- Díaz, María Isabel Álvarez, **José-Julio Rodríguez**, Juan José Badiola, Marta Monzón, Adolfo Toledano. "Reflections on Cerebellar Neuropathology in Classical Scrapie". Biomolecules. 11: 649. 2021.

118. I. Vanzulli, M. Papanikolaou, I. Chacon De La Rocha, A. Rivera, D. Gomez Nicola, A. Verkhratsky, **J.J. Rodríguez**, A.M. Butt. "Disruption of oligodendrocyte progenitor cells is an early sign of pathology in the triple transgenic mouse model of Alzheimer's disease". Neurobiology of Aging 94:130-139. 2020.

117. A. Vekhratsky, **J.J. Rodríguez**, A. Pivoriunas, R.Zorec, A. Semyanov. "Astroglial Atrophy in Alzheimer´s Disease". Pflugers Arch. 471: 1247-1261. 2019.

116. A. Vekhratsky, V. Parpura, **J.J. Rodríguez-Arellano**, R.Zorec "Astroglia in Alzheimer´s Disease". Adv. Exp. Med. Biol. 1175: 273-324. 2019.

115. A. Vekhratsky, R.Zorec, **J.J. Rodríguez-Arellano**, V. Parpura. "Neuroglia in Ageing". Adv. Exp. Med. Biol. 1175: 181-189. 2019.

114. F. Zallo, E. Gardenal, A.Verkhratsky, **J.J. Rodríguez**. "Loss of calretinin and parvalbumin positive interneurones in the hippocampal CA1 of aged Alzheimer´s disease mice". Neurosci. Lett. 681: 19-25. Doi: 10.1016/j.neulet.2018.05.027. 2018.

113. A. Verkhratsky, **J.J Rodríguez**. "Cell-autonomous astrocytopathy in Alzheimer´s disease". Acta Physiol (Oxf). Jun; 223 (2): e13070. Doi: 10.1111/apha. 13070. Epub 2018 Apr 19.

112. A. Verkhratsky, R. Zorec, **J.J. Rodríguez**, V. Parpura. "Neuroglia: Functional Paralysis and reactivity in Alzheimer´s disease and other neurodegenerative pathologies". Adv. Neurobiol. 15: 427-449. Doi: 10.1007/978-3-319-57193-5_17. 2017.

111. E. Gardenal, A. Chiarini, U. Armato, I. Dal Prà, A.Verkhratsky, **J.J. Rodríguez**. "Increased calcium-sensing receptor immunoreactivity in the hippocampus of a triple transgenic mouse model of Alzheimer's disease". Frontiers in Neuroscience. Feb 16;11:81. doi: 10.3389/fnins.2017.00081. 2017.

110. A. Toledano, M.I. Álvarez, A.Toledano-Díaz, **J.J. Rodríguez-Arellano**. "New concepts on the functionality of the nervous system: the revolutionof the glial cells. II. Glial responses keys in the pathogenesis and treatment of diseases of SN". Anales de la Real Academia Nacional de Farmacia. 82: 51-67. 2016.

109. A. Verkhratsky, R. Zorec, **J.J. Rodriguez**, V.Parpura. "Pathobiology of neurodegeneration: the role for astroglia". Opera Med. Physiol. 1:13-22. 2016.

108. A.Verkhratsky, **J.J. Rodríguez-Arellano**, V. Parpura, R. Zorec. "Astroglial calcium signalling in Alzheimer's disease". Biochem. Biophys. Res. Commun. doi: 10.1016/j.bbrc.2016.08.088. [Epub ahead of print]. 2016.

107. J. Růžička, M. Kulijewicz-Nawrott, **J.J. Rodríguez-Arellano**, P. Jendelová, E. Syková. "Mesenchymal stem cells attenuate working memory in the 3xTg-AD mouse model of Alzheimer's disease". Int. J. Mol. Sci. 17(2). pii: E152. doi: 10.3390/ijms17020152. 2016.

106. A. Toledano, J.J. Merino, **J.J. Rodríguez**. "Neuroglia in Alzheimer's Disease: From Cohort to Contestant in the Disease Progression and its Therapy" (Editorial). Curr. Alzheimer Res.13 :318-20. 2016.

105. **J.J. Rodríguez**, A.M Butt, E. Gardenal, V. Parpura and A. Verkhratsky. "Complex and differential neuroglial responses during the progression of Alzheimer´s disease and ageing: from animal models to humans". Curr. Alzheimer´s Res. 13 :343-58. 2016.

104. A.Verkhratsky, R. Zorec, **J.J. Rodríguez** and V.Parpura. "Astroglia dynamics in ageing and Alzheimer's disease" Curr. Op. Pharmacol. 26: 74-79. 2016

103. M. Stenovec, S.Trkov, S. Terzieva, M. Kreft, **J.J. Rodríguez Arellano**, V. Parpura, A.Verkhratsky and R. Zorec. "Expression of familial Alzheimer disease presenilin 1 gene attenuates vesicle traffic and reduces peptide secretion in cultured astrocytes devoid of pathologic tissue environment". Glia 64:317-329. 2016.

102. A.Toledano, M.I. Alvarez, A.Toledano-Díaz, J.J Merino and **J.J. Rodríguez**. "Brain local and regional neuroglial alterations in Alzheimer´s Disease: cell types, responses and implications". Curr. Alzheimer´s Res. 13: 321-42. 2016.

101. A. Rivera, I. Vanzulli, , **J.J. Rodríguez-Arellano** and A.M Butt. "Decreased regenerative capacity of oligodendrocyte progenitor cells (NG2-glia) in the ageing brain: a vicious cycle of synaptic dysfunction, myelin loss and neuronal disruption? Curr. Alzheimer´s Res. 13(4):413-8. 2016.

100. D. Lim, **J.J. Rodríguez-Arellano**, V. Parpura, R. Zorec, F. Zeidán-Chuliá, A.A. Genazzani & A. Verkhratsky. "Calcium signalling toolkits in astrocytes and spatio-temporal progression of Alzheimer's disease". Curr. Alzheimer´s Res. 13(4):359-69. 2016.

99. **J.J. Rodríguez-Arellano**, V. Parpura, R. Zorec and A. Verkhratsky. "Astrocytes in physiological ageing and Alzheimer´s disease". 323:170-82. Neuroscience. 2016.

98. R. Zorec, A. Verkhratsky, **J.J. Rodríguez**, and V. Parpura. "Astrocytic vesicles and gliotransmitters: slowness of vesicular release and synaptobrevin2-laden vesicle nanoarchitecture. Neuroscience. 323:67-75 2016.

97. N. Llamosas, C. Bruzos-Cidón, **J.J. Rodríguez**, L. Ugedo L and M. Torrecilla M. "Deletion of GIRK2 subunit of GIRK channels alters 5-HT_{1A} receptor-mediated signaling and results in a depression-resistant behavior". May 8. pii: pyv051. doi: 10.1093/ijnp/pyv051. [Epub ahead of print]. Int. Journal Neuropsychopharmacol. 2015.

95. A. Verkhratsky, A. Marutle, **J.J Rodríguez-Arellano** and A. Nordberg. "Glial asthenia and functional paralysis: A new perspective on neurodegeneration and Alzheimer's disease". The Neuroscientist. 21:552-568. 2015.

96. C. Bruzos-Cidón, C. Miguelez, **J.J. Rodríguez**, R. Gutiérrez-Lanza, L. Ugedo and M. Torrecilla. "Altered neuronal activity and differential sensitivity to acute antidepressants of locus coeruleus and dorsal raphe nucleus in Wistar Kyoto rats: a comparative study with Sprague Dawley and Wistar rats". Eur Neuropsychopharmacol. 24: 1112-22. 2014.

94. M. M. Edwards, **J. J. Rodríguez**, R. Gutierrez Lanza, J. Yates, A. Verkhratsky and G. A. Lutty. "Activation of retinal glia in a triple transgenic mouse model of Alzheimer's disease". Experimental Eye Research. 127:252-60. 2014.

93. A. Verkhratsky, **J.J. Rodríguez** and V. Parpura. "Neuroglia in ageing and disease". Cell and Tissue Research. 357: 493-503. 2014.

92. **J. J. Rodríguez**, C-Y Yeh, S. Terzieva, M. Olabarria, M. Kulijewicz-Nawrot and A. Verkhratsky." Complex and region-specific changes in astroglial markers in the aging brain". Neurobiol. Aging. 35:15-23. Sep. 2014.

91. A. Verkhratsky, **J. J. Rodríguez** and L. Steardo."Astrogliopathology: a central element of neuropsychiatric diseases? Neuroscientist. 20, p. 576 - 588. 2014.

90. **J. J. Rodríguez**, S. Terzieva, M. Olabarria, R. G. Lanza and A. Verkhratsky. "Enriched environment and physical activity reverse astrogliodegeneration in the hippocampus of AD transgenic mice". Cell Death Dis. 4(6): e678. doi: 10.1038/cddis.2013.194. 2013.

89. **J.J. Rodríguez**, H. N. Noristani, T. Hilditch, M. Olabarria, C.Y.Yeh, J. Witton and A. Verkhratsky. "Increased densities of resting and activated microglia in the dentate gyrus follow senile plaque formation in the CA1 subfield of the hippocampus in the triple transgenic model of Alzheimer's disease". Neurosci Lett. 552: 129–134. 2013.

88. **J.J. Rodríguez**, H.N. Noristani and A. Verkhratsky. "Microglial response to Alzheimer's disease is differentially modulated by voluntary wheel running and enriched environments." Brain Struct Funct. [Epub ahead of print]. DOI 10.1007/s00429-013-0693-5 2013.

87. M. Kulijewicz-Nawrot, E. Syková, A. Chvátal, A. Verkhratsky, **J.J. Rodríguez**."Astrocytes and glutamate homeostasis in AD: Decrease in glutamine synthetase but not in GLT-1glutamate transporter in the prefrontal cortex."ASN Neuro. 5:273-82. 2013.

86. C-Y. Yeh, A. Verkhratsky, **J. J. Rodríguez** "Glutamine synthetase in astrocytes from entorhinal cortex of the triple transgenic animal model of Alzheimer's disease is not affected by pathological progression". Biogerontology. 14:777-787. 2013.

85. A.A. Grolla, J.A. Sim, D. Lim, **J.J. Rodríguez**, A.A. Genazzani, A. Verkhratsky. "Amyloid-β and Alzheimer´s disease type pathology differentially affects calcium signalling toolkit in astrocytes from different brain regions". Cell Death Dis. 4:e623. doi: 10.1038/cddis.2013.145. 2013.

84. E. Alberdi, A. Wyssenbach, M. Alberdi, M.V. Sánchez-Gómez, F. Cavaliere, **J.J Rodríguez**, A. Verkhratsky, Carlos Matute. "Ca^{2+}-dependent endoplasmic reticulum stress correlates with astrogliosis in oligomeric Ab-treated astrocytes and in a model of Alzheimer's disease". Aging Cell.12: 292-302. 2013.

83. A. Verkhratsky, **J.J. Rodríguez**, V. Parpura. "Astroglia in neurological diseases". Future Neurol. 8:149-158. 2013.

82. M.A. Fiol, R. Gutierrez-Lanza, S. Terés, P. Barceló, M. Torres, R.V. Rial, P.V. Escribá, X. Busquets, **J. J. Rodríguez**. "Cognitive recovery and restoration of cell proliferation in the dentate gyrus in the 5XFAD transgenic mice model of Alzheimer's disease following 2-hydroxy-DHA treatment". Biogerontology.14:763–775. 2013.

81. N. I. Medvedev, G. Dallérac, V. I. Popov, **J. J. Rodríguez Arellano**, H. A. Davies, I. V. Kraev, V. Doyère & M. G. Stewart. "Multiple spine boutons are formed after long-lasting LTP in the awake rat". Brain Structure & Function. doi: 10.1007/s00429-012-0488-0. 2012.

80. W. Kamphuis, C. Mamber, M. Moeton, L. Kooijman, J.A. Sluijs, A.H.P. Jansen, M. Verveer, L.R. De Groot, V.D. Smith, S. Rangarajan, **J.J Rodríguez**, M. Orre, E.M. Hol. "GFAP isoforms in adult Mouse Brain with a focus on neurogenic astrocytes and reactive astrogliosis in mouse models of Alzheimer Disease". PLoS One. 7(8): e42823. 2012.

79. M. Kulijewicz-Nawrot, A. Verkhratsky, A. Chvátal, E. Syková, **J. J. Rodríguez**. "Astrocytic cytoskeleton atrophy in the medial prefrontal cortex during the progression of Alzheimer's disease". J. Anat. 221: 252-262. 2012.

78. H.N. Noristani, A. Verkhratsky, **J.J. Rodríguez**. "High tryptophan diet reduces CA1 intraneuronal β-amyloid in the triple transgenic mouse model of Alzheimer's disease". Aging Cell. 11(5):810-22. 2012 .

76. A. Verkhratsky, **J.J. Rodríguez**, V. Parpura. "Neurotransmitters and integration in neuronal-astroglial networks". Neurochem. Res. 37: 2326-38 2012.

75. A. Verkhratsky, M. V. Sofroniew, A. Messing, N. C. deLanerolle, D. Rempe, **J.J. Rodríguez**, M. Nedergaard. "Neurological diseases as primary gliopathies: a reassessment of neurocentrism". ASN Neuro. 4(3). pii: e00082. doi: 10.1042/AN20120010. 2012.

74. R.P. Vertes , W.B Hoover and **J.J. Rodríguez**. "Projections of the central medial nucleus of the thalamus: Node in cortical, striatal and limbic forebrain circuitry". Neuroscience. 219: 120-136. 2012.

73. **J.J. Rodríguez,** H.N. Noristani, A. Verkhratsky. "The Serotonergic system in aging and Alzheimer's disease." Prog Neurobiol. 99: 15-41. 2012.

72. F. Léveillé, J. B. Ortega, **J.J. Rodríguez**, R.S. Meadows, A. Verkhratsky, O. Nicole, Alain Buisson. "Oligomers of β-amyloid peptides induce selective synaptotoxicity of excitatory synapses". Neuron. In Press. 2012.

71. A. Verkhratsky, **J.J. Rodríguez**, V. Parpura. "Calcium signalling in astroglia." Mol Cell Endocrinol. 353: 45-56. 2012.

70. F.E. Perrin, Y.N. Gerber, M. Teigell, N. Lonjon, G. Boniface, L. Bauchet, **J.J. Rodríguez**, J.P. Hugnot, A.M. Privat. "Anatomical study of serotonergic innervation and 5-HT(1A) receptor in the human spinal cord". Cell Death Dis. 2:e218. doi: 10.1038/cddis.2011.98. 2011.

69. C.Y. Yeh, A. Verkhratsky, **J.J. Rodríguez.** "Early astrocytic atrophy in the entorhinal cortex of a triple transgenic animal model of Alzheimer's disease." ASN Neuro. 3:271-9. 2011.

68. M. Olabarria, H.N. Noristani, A. Verkhratsky, **J.J. Rodríguez. "**Age-dependent decrease in glutamine synthetase expression in the hippocampal astroglia of the triple transgenic Alzheimer's disease mouse model: Mechanism for deficient glutamatergic transmission?" Mol Neurodegeneration. 6:55-63. 2011.

67. H.N. Noristani, M. Olabarria, A. Verkhratsky, **J.J. Rodríguez**. "Increased hippocampal CA1 density of serotonergic terminals in a triple transgenic mouse model of Alzheimer's disease: an ultrastructural study". Cell Death Dis. 32: 71-79. 2011

66. **J.J. Rodríguez,** H.N. Noristani, M. Olabarria, J. Fletcher, T. Summerville, C.Y. Yeh, A. Verkhratsky "Voluntary running and environmental enrichment restores impaired hippocampal neurogenesis in a triple transgenic mouse model of Alzheimer's disease." Curr Alzheimer's Res. 8: 707-717. 2011.

65. **J.J. Rodríguez,** Noristani H.N., Hoover W.B., Linley S.B., Vertes R.P. "Serotonergic projections and serotonin receptor expression in the reticular nucleus of the thalamus in the rat." Synapse. 65:919-28. 2011.

64. **J.J. Rodríguez** and A. Verkhratsky. "Neurogenesis in Alzheimer's disease". Journal of Anatomy. 219:78-89. 2011.

63. **J.J. Rodríguez** and A. Verkhratsky. "Neuroglial roots of neurodegenerative diseases?" Mol. Neurobiol. 43:87-96. 2011.

62. A. Verkhratsky and **J.J. Rodríguez**. "The Achilles heel of γ-secretase: Can we contain Alzheimer's disease by reducing synthesis of β-amyloid?" Acta Pharmacologica Sinica. 31:1047-1048. 2010.

61. C.J. Peddie, H.A. Davies, F.M. Colyer, M.G. Stewart and **J.J Rodríguez**. "A subpopulation of serotonin (1B) receptors colocalize with AMPA receptor subunit GluR2 in the hippocampal dentate gyrus". Neurosci. Lett. 485: 251-255. 2010.

60. N.I. Medvedev, V.I. Popov, G. Dallérac, H.A. Davies, S. Laroche, I.V. Kraev, **J.J. Rodriguez Arellano**, V. Doyère V and M.G. Stewart. "Alterations in synaptic curvature in the dentate gyrus following induction of long-term potentiation, long-term depresión and treatment with the N-methyl-d-aspartate receptor antagonista CPP". Neuroscience. 171: 390-7. 2010.

59. A. Verkhratsky, M. Olabarria, H.N. Noristani, C. Y. Yeh and **J.J. Rodríguez.** "Astrocytes in Alzheimer's disease. Neurotherapeutics. 7: 399-412. 2010.

58. A. Verkhratsky, V. Parpura and **J.J. Rodríguez.** . "Where the thoughts dwell: the physiology of neuronal glial difuse neural net". Brain Res. Rev. 66:133-151. 2010.

57. M.T. Heneka, J.J. **Rodríguez, and A. Verkhratsky**. "Neuroglia in neurodegeneration". Brain Res. Rev. 63: 189-211. 2010.

56. H.N. Noristani, M. Olabarria, A. Verkhratsky and **J.J. Rodríguez**. "Serotonin fibre sprouting and increase in serotonin transporter immunoreactivity in CA1 are of hippocampus in a triple transgenic mouse model of Alzheimer's Disease". Eur. J. Neurosci. 32: 71-79. 2010.

55. M. Olabarria, H.N. Noristani, A. Verkhratsky and **J.J. Rodríguez**. "Concomitant astroglial atrophy and astrogliosis in a triple transgenic animal model of Alzheimer's disease". Glia. 58:831-838. 2010.

54. **J.J. Rodríguez**, J. Witton, M. Olabarria, H.N. Noristani and A. Verkhratsky. "Increase in the density of resting microglia precedes neuritic plaque formation and microglial activation in a transgenic model of Alzheimer's disease". Cell Death Dis. 1, e1; doi:10.1038/cddis.2009.2. 2010.

53. M. Nedergaard, **J.J. Rodríguez** and A. Verkhratsky. "Glial calcium and diseases of the nervous system". Cell Calcium. 47: 140-149. 2010.

52. N.I. Medvedev, V.I. Popov, **J.J. Rodríguez Arellano**, G. Dallérac, H.A. Davies, P.L. Gabbott, S. Laroche, I.V. Kraev, V. Doyère and M.G. Stewart. "The NMDA receptor antagonist CPP alters synapse and spine structure and impairs LTP and LTD induced morphological plasticity in the dentate gyrus of awake rats". Neuroscience. 165: 1170-1181. 2010.

51. M. Canal, N.M. Mohammed and **J.J. Rodríguez**. "Early programming of astrocyte organisation in the mouse suprachiasmatic nuclei by light". Chronobiology. 26: 1545-1558. 2009.

50. **J.J. Rodríguez** and A. Verkhratsky. "Rafael Lorente de Nó (1902-1990): the pioneer of physiological neuroanatomy". FEPS Newsletter. 24: 5-9. 2009.

49. P. Arkwright, F. Luchetti, J. Tour, C. Roberts, R. Ayub, A.P. Morales, **J.J. Rodríguez**, A.P. Gilmore, B. Canonico, S. Papa and and M. Esposti "Fas stimulation of T lymphocytes promotes rapid intercellular exchange of death signals via membrane nanotubes". Cell Research. 20: 72-88. 2009.

48 **J.J. Rodríguez**, G.M.Dallérac, M. Tabuchi, H.A.Davies, M.G.Stewart and V.Doyère. "NMDA-independent changes in expression of PSA-NCAM after induction of LTP and LTD in the rat dentate gyrus *in vivo*". Neuron Glia Biology. Neuron Glia Biol. 4:169-78. 2008. Epub 2009 Aug 13.

47 **J.J. Rodríguez**, V.C. Jones and A. Verkhratsky. Impaired cell proliferation in the subventricular zone in an Alzheimer's disease model. NeuroReport. 20: 907-912. 2009.

46 V.C. Jones, **J.J. Rodríguez**, A. Verkhratsky and O.T. Jones "A lentivirally-delivered photoactivatable GFP to assess continuity in the endoplasmic reticulum of neurones and glia". Pflügers Archiv. 458: 809-818. 2009.

45. **J.J. Rodríguez**, M. Olabarria, A. Chvátal and A. Verkhratsky. "Astroglia in dementias and Alzheimer's disease". Cell Death Differ. 16: 378-385. 2009.

44. **J.J. Rodríguez**, V.C. Jones, M. Tabuchi, S.M. Allan, E.M. Knight, F.M. LaFerla, S. Oddo and A. Verkhratsky. "Impaired adult neurogenesis in the dentate gyrus of a triple transgenic mouse model of Alzheimer's disease". PLoS One. 3: e2935. 2008.

43. C.J. Peddie, H.A. Davies; F.M. Colyer, M.G. Stewart and **J.J. Rodríguez**. "Dendritic colocalisation of serotonin1B receptors and the glutamate NMDA receptor subunit NR1 within the hippocampal dentate gyrus: an ultrastructural study". J. Chem. Neuroanat. 36: 17-26. 2008.

42. C.J. Peddie, H.A. Davies; F.M. Colyer, M.G. Stewart and **J.J. Rodríguez**. "Colocalisation of serotonin2A receptors with the glutamate receptor subunits NR1 and GluR2 in the dentate gyrus: an ultrastructural study of a modulatory role". Exp. Neurol. 211:561-573. 2008.

41. **J.J. Rodríguez**, H.A. Davies, M.L. Errington, A. Verkhratsky, T.V.P. Bliss and M.G. Stewart. "Expression of Arg3.1/Arc in hippocampal dentate gyrus astrocytes: ultrastructural evidence and co-localization with glial fibrillary acidic protein". J. Cell. Mol. Med. 12: 671-678. 2008.

40. **J.J. Rodríguez**, N. Medvedev, V. Popov, H.A. Davies, C.M. Tigaret, R. Schoepfer, M.G. Stewart. "The GluR2 subunit controls PSD complexity and spine shape in the dentate gyrus". Eur. J. Neurosci. 27:315-325. 2008.

39. D. Dupret, A. Fabre, M. D. Döbrössy, A. Paunatier, **J.J. Rodrígue**z, S. Lamarque, V. Lemaire, S.H.R. Oliet, P-V Piazza and D. N. Abrous "Spatial learning depends on both the addition and removal of new hippocampal neurons". PLoS Biology. 5: e214. 2007.

38. R.P. Vertes, W.B. Hoover, A.C. do Valle, A.Sherman and **J.J. Rodríguez** "Efferent projections of reuniens and rhomboid nuclei of the thalamus in rat". J. Comp. Neurol. 499: 768-796. 2006.

37. A. Lauver, L.L. Yuan, A. Jeromin, B.M. Nadin, **J.J. Rodríguez**, H.A. Davies, M.G. Stewart, G.Y. Wu and P.J. Pfaffinger. "Manipulating Kv4.2 identifies a specific component of hippocampal pyramidal neuron A-current that depends upon Kv4.2 expression". J. Neurochem. 99: 1207-1223. 2006.

36. H.S Donohue, P.L.A. Gabbott, H.A Davies, **J.J. Rodríguez**, M.I. Cordero, C. Sandi, N.I. Medvedev, V.I. Popov, F.M. Colyer, C.J. Peddie, M.G. Stewart. "Chronic restraint stress induces changes in synapse morphology in stratum lacunosum-moleculare CA1 rat hippocampus: a stereological and three-dimensional ultrastructural study". Neuroscience. 140: 597-606. 2006.

35. M.G. Stewart, N.I. Medvedev, V.I. Ppopov, R. Schoepfer, H.A. Davies, K.P.S.J. Murphy, G.M. Dallérac, I.V. Kraev and **J.J. Rodríguez**. "Chemically induced long term potentiation increases the number of perforated and complex post-synaptic densities but does not alter dendritic spine volume in CA1 of adult mouse hippocampal slices". Eur. J. Neurosci. 21: 3368-3378. 2005.

34. M.I. Cordero, **J.J. Rodríguez**, H.A. Davies, C.J. Peddie, C. Sandi and M.G. Stewart. "Chronic restraint stress down-regulates amygdaloid expression of PSA-NCAM". Neuroscience. 133: 903-910. 2005.

33. **J.J. Rodríguez**, H.A. Davies, A.T. Silva, I.E.J. De Souza, C.J. Peddie, F.M. Colyer, C.L. Lancashire, A. Fine, M.L. Errington, T.V.P. Bliss and M.G. Stewart. "Long-term potentiation in the rat dentate gyrus is associated with enhanced Arc/Arg 3-1 protein expression in spines, dendrites and glia". Eur. J. Neurosci. 21: 2384-2396. 2005.

32. M.G. Stewart, H.A. Davies, C. Sandi, I.V. Kraev, V.V. Rogachevsky, C.J. Peddie, **J.J. Rodríguez,** M.I. Cordero, H.S. Donohue, P.L.A. Gabbott and V.I. Popov. "Stress suppresses and learning induces ultrastructural plasticity in CA3 of rat hippocampus: a three-dimensional ultrastructural study of thorny excrescences and their postsynaptic densities". Neuroscience. 131: 43-54. 2005.

31. W. Mayo, V. Lemaire, J. Malaterre, **J.J. Rodríguez**, M Cayre, M.G. Stewart, M. Kharouby, G. Rougon, M. Le Moal, P.V. Piazza and D.N Abrous. "Pregnenolone sulphate enhances neurogenesis and PSA-NCAM in young and aged hippocampus". Neurobiol. Aging. 26: 103-114. 2005.

30. V.M. Pickel, J. Chan, T.L. Kash, **J.J. Rodríguez**, and K. Mackie. "Compartment-specific localization of cannobinoid 1 (CB1) and m-opioid receptors in rat nucleus accumbens". Neuroscience 127: 101-112. 2004.

29. H.A. Davies, A. Kelly, T.M. Dhanrajan, M.A. Lynch, **J.J. Rodríguez** and M.G. Stewart. "Synaptophysin immunogold labelling of synapses decreases in hippocampus of aged rats". Brain Res. 986: 191-195. 2003.

28. C. Sandi, H.A. Davies, M.I. Cordero, **J.J. Rodríguez**, V.I. Popov and M.G. Stewart. "Rapid reversal of stress induced loss of synapses in CA3 of the rat hippocampus following water maze training". Eur. J. Neurosci. 17: 2447-2456. 2003.

27. A.I. Boullerne, **J.J. Rodríguez**, T. Touil, B. Brochet, D. N. Abrous, M. Le Moal, J.R. Pua, M.A. Jensen, W. Mayo, B.G.W. Arnason and K.G. Petry. "Anti-NO-cysteine antibodies are a predictive marker for demyelination in Experimental Autoimmune Encephalomyelitis : implications for Multiple Sclerosis". J. Neurosci. 22: 123-132. 2002.

26. **J.J. Rodríguez**, K. Mackie and V.M. Pickel. "Ultrastructural localization of the CB1 Cannabinoid receptor in μ-opioid receptor patches of the rat caudate-putamen nucleus". J. Neurosci. 21: 823-833. 2001.

25. **J.J. Rodríguez**, D.R. Garcia, Y. Nakabeppu and V.M. Pickel. "Enhancement of laminar FosB expression in frontal cortex of rats receiving long chronic clozapine administration ". Exp. Neurol. 168: 392-401. 2001.

24. **J.J. Rodríguez**, D.R. Garcia, Y. Nakabeppu and V.M. Pickel. "Fos B in rat striatum: normal regional distribution and enhanced expression after 6-month haloperidol administration". Synapse. 39: 122-132. 2001.

23. M. Monzón-Mayor, M.I. Alvarez, J.F. Arbelo-Galván, M.M. Romero-Alemán, C. Yanes, M.L. Plaza, J.R. Rodríguez, **J.J. Rodríguez**, A. Toledano. "Long-term evolution of local proximal and remote astrocyte

responses after diverse nucleus basalis lesioning (an experimental Alzheimer model): GFAP immunocytochemical study". Brain Res. 865: 245-248. 2000.

22. **J.J. Rodríguez**, M.D. Doherty and V.M. Pickel. "N-methyl-D-aspartate (NMDA) receptors in the ventral tegmental area: subcellular distribution and colocalization with 5-hydroxytryptamine$_{2A}$ receptors". J. Neurosci. Res. 60: 202-211. 2000.

21. P. Brancherau, **J.J. Rodríguez**, I. Delvolvé, D.N. Abrous, M. Le Moal and J.M. Cabelguen. "Serotonergic systems in the spinal cord of the amphibian urodele Pleurodeles waltl". J. Comp. Neurol.. 419: 49-60. 2000.

20. **J.J. Rodríguez**, D.R. Garcia and V.M. Pickel. "Subcellular distribution of 5-hydroxytrytamine$_{2A}$ and N-methyl-D-Aspartate receptors within single neurons in rat motor and limbic striatum". J. Comp. Neurol. 413:219-231. 1999.

19. **J.J. Rodríguez**, M.F. Montaron, C. Aurousseau, M. Le Moal and D.N. Abrous. "Effects of amphetamine and cocaine treatment on c-Fos, Jun-B and Krox-24 expression in rats with intrastriatal dopaminergic grafts". Exp. Neurol. 159: 139-152. 1999.

18. **J.J. Rodríguez** and V.M. Pickel. "Enhancement of N-methyl-D-aspartate immunoreactivity in residual dendritic spines in the caudate-putamen nucleus after chronic haloperidol administration". Synapse. 33: 289-303. 1999.

17. D.N. Abrous, **J. Rodríguez**, M. Le Moal, P.C. Moser and P. Barnéoud. "Effects of mild traumatic brain injury on immunoreactivity for the inducible transcription factors c-Fos, c-Jun, JunB and Krox 24 in cerebral regions associated with conditioned fear response". Brain Res. 826: 181-192. 1999.

16. M.F. Montaron, K.G. Petry, **J.J. Rodríguez**, M. Marinelli, C. Aurousseau, G. Rougon, M. Le Moal and D.N. Abrous. "Adrenalectomy increases neurogenesis but not PSA-NCAM expression in aged dentate gyrus". Eur. J. Neurosci. 11: 1479-1485. 1999.

15. **J.J. Rodríguez**. "Chronic haloperidol increases NMDA immunoreactive dendrites and spines in the rat caudate-putamen nucleus". In: Press Book, Part II Lay-Languge Summaries. 318-320. Society for Neuroscience. 1998.

14. **J.J. Rodríguez**, M.F. Montaron, K.G. Petry, C. Aurousseau, M. Marinelli, S. Premier, G. Rougon, M. Le Moal and D.N. Abrous. "Complex regulation of the expression of the expression of the polysialylated form of the neuronal cell adhesion molecule by glucocorticoids in the rat hippocampus". Eur. J. Neurosci. 10: 2994-3006. 1998.

13. D.N. Abrous, **J.J. Rodríguez**, M.F. Montaron, C. Aurousseau, M. Le Moal and P. Barnéoud. "Behavioural recovery after unilateral lesion of the dopaminergic mesotelencephalic pathway: effect of repeating testing". Neuroscience 84 (1): 213-221. 1998.

12. **J.J. Rodríguez**, L. Rivas, M.A. Carrillo, M.A. Oroza and A. Toledano. "Proteinas de shock termico (HSPs) en el sistema nervioso central: Implicacion en procesos neurodegenerativos". Patologia. 29: 333-341.1996.

11. A. Toledano, **J.J. Rodríguez-Arellano**, I. A. Gomez de Segura, E. de Miguel and R. Martinez-Rodriguez. "Bowel resection and neurotensin treatment. Histochemical study of neurotensin-like and somatostatin-like immunoreactivities and receptors". Cell. Mol. Biol. 42 (8): 1145-1158.1996.

10. M.I. Alvarez, L. Rivas, **J.J. Rodríguez**, M.A. Oroza and Murube J. "Estudio ultraestructural de la conjuntiva en pacientes con queratoconjuntivitis seca". Archivos de la Sociedad Española de Oftalmología. 70:431-436. 1996.

9. M.I. Alvarez, L. Rivas, **J.J. Rodríguez** and Murube J. "Tratamientos con eledoisina en pacientes con queratoconjuntivitis seca". Archivos de la Sociedad Española de Oftalmología. 70: 245-252. 1996.

8. L. Rivas, M.I. Alvarez, **J.J. Rodríguez** and J. Murube. "Ophthalmological tests in patients with keratoconjunctivitis sicca with and without association of primary Sjögrens syndrome". German J. Ophthal. 4: 306-310. 1995.

7. **J.J. Rodríguez**, L. Rivas, M.A. Oroza, M.I. Alvarez and J. Murube del Castillo. "Estudio histológico del saco lagrimal normal y con dacriocistitis". Archivos de la Sociedad Española de Oftalmología. 66: 243-248. 1994.

6. A. Toledano, L. Rivas and **J.J. Rodríguez-Arellano**. "Morphological and Histochemical Characteristics of Mitochondria during Senile Involution of the Cerebellar Cortex". The Bulletin of Molecular Biology and Medicine. 18 (1-2): 1-23. 1993.

5. L. Rivas, M.I. Alvarez, **J.J. Rodríguez**, M.A. Oroza, M.I. Mayo and J. Murube del Castillo. "Correlación entre los Parámetros de la Función Lagrimal y los Cambios Morfológicos de la Superficie Ocular en Keratoconjunctivitis Sicca con y sin asociación del Síndrome de Sjögren". Archivos de la Sociedad Española de Oftalmología. 65: 133-142. 1993.

4. L. Rivas, **J.J. Rodríguez**, M.I. Alvarez, M.A. Oroza and J. Murube del Castillo. "Correlations between Impression Cytology and Tear Function Parameters in Sjögren Syndrome". Acta Ophthalmologica. 71: 353-359. 1993.

3. L. Rivas, **J.J. Rodríguez**, M.I. Alvarez and J. Murube del Castillo. "Estructura del Saco Lagrimal. Existencia de un Epitelio Ciliado". Archivos de la Sociedad Española de Oftalmología. LX: 663-666. 1991.

2. L. Rivas, M.A. Oroza, M.I. Alvarez, A. Perez-Esteban, **J.J. Rodríguez** and J. Murube del Castillo. "Alteraciones de la Superficie Ocular en Personas con Keratoconjunctivitis Sicca, por Citología de Impresión". Archivos de la Sociedad Española de Oftalmología. LX (2): 183-188. 1991.

1. L. Rivas, **J.J. Rodríguez** and J. Murube del Castillo. "Glándulas Serosas en el Saco Lagrimal". Archivos de la Sociedad Española de Oftalmología. LX (2): 173-176. 1991.

BOOKS & MONOGRAPHIES

8. The cellular players of Alzheimer's Disease. Chapter "Glia as central determinants in the progression of Alzheimer´s disease". **J.J Rodríguez Arellano**, A.M. Butt and A.Verkhratsky. Eds. Montserrat Solé Piñol and Alfredo Miñano. Omics Publishing Group. In Preparation. 2022.

7. "Glial Cell Biology: A Historical Perspective. Chapter "Astroglia: Evolution of the concept". V. Parpura, **J.J. Rodríguez**, A. Verkhratsky. Eds. De Vries and Boullerne. John Wiley Publishers. 2016.

6. Brain Mapping: An Encyclopedic Reference. Chapter "Astrocytes, Oligodendrocytes and NG2 cells: Structure and Function". A. Verkhratsky, A. Butt, **J.J. Rodriguez** and V. Parpura. Academic Press. Vol. 2: 101-107. 2015.

5. Pathological potential of neuroglia: Possible new targets for medical intervention. Chapter "Neurodegeneration and neuroglia: Emphasis on astroglia in Alzheimer's disease". A.Verkhratsky, V. Parpura and **J. J. Rodríguez**. Eds. Vladimir Parpura and Alexei Verkhratsky. Springer. Pp. 265-292. 2014.

4."Research Progress in Alzheimer's Disease and Dementia". Chapter "Neuroglial Integrity and Neurodegenerative Disorders". **J.J. Rodriguez** and A. Verkhratsky. Ed. Miao-Kun Sun. Nova Science Publisher, Inc, New York, USA. July 2012. Vol V, pp 141-171.

3. "Astrocytes: Wiring the brain". Chapter "Neuroglia in Alzheimer's disease". **J.J. Rodríguez**, C. Matute and A. Verkhratsky. Eds. Scemes and Spray. Taylor and Francis, Boca Raton, Fl, USA. November 2012.Pp 311-337.

2. "Neuroscience-The Science of the Brain". Translation to Spanish (web based). **J.J. Rodríguez**. British Neuroscience Association & European Dana Alliance for the Brain.

1. “Treatments with an stimulant of glandular secretion and artificial tearsin patients with Sjögren Syndrome” (In Spanish) -“Tratamientos con un Estimulante de la Secreción Glandular y con Lágrimas Artificiales en Pacientes con Síndrome de Sjögren”. L. Rivas, M.I. Alvarez, **J.J. Rodríguez**, M.A. Oroza and J. Murube del Castillo. Published by Allergan Therapeutics. Allergan Division, S.A.E.. With the editorial coordination of de I. M & C, Raimundo Fernandez Villaverde nº 57 (28003-Madrid, Spain).

SPECIAL ISSUES GUEST EDITED

1. “Neuroglia in Alzheimer´s Disease: from cohort to contestant in the disease progression and its therapy”. Eds. A. Toledano, J.J. Merino and **J.J. Rodríguez**. Curr. Alzheimer´s Res. 13 (4). 2016.

GUEST LECTURES

52. **J.J. Rodríguez** . “Neuroglial morphological and metabolic alterations in Alzheimer´s disease are key elements for understanding its neuropathology”. Centro Internacional de Restauración Neurológica (CIREN). 18th November 2016. La Habana. Cuba.

51. **J.J. Rodríguez**. “Neurogenic and gliogenic alterations and recovery in Alzheimer's disease: a new view for understanding and tackling the disease”. FEPS Forum of European Physiology Society Meeting. 26th-29th August 2015. Kaunas. Lithuania.

50. **J.J. Rodríguez**. “Morphological and metabolical changes in neuroglia during the progression of Alzheimer´s disease and ageing”. 25th Meeting of the International Society for Neurochemistry 23th-27th August 2015. Cairns. Australia.

49. **J.J. Rodríguez**. “Astroglial complex senescent phenotype and its contribution to neurodegeneration”. XII European Meeting on Glial Cells in Health and Disease. 15th-18th, July 2015. Bilbao. Spain.

48. **J.J. Rodríguez. “**Neuroglial morphological and metabolical alterations during the progression of Alzheimer´s disease and ageing”. FEPS Forum of European Physiology Society Meeting. 27th-30th August 2014. Budapest. Hungary.

47. **J.J. Rodríguez. “**Complex neuroglial alterations during the progression of Alzheimer´s disease and ageing “. International Scientific School “Frontiers in Modern Neuroscience”. Russia. 15th to 18th June 2014. Niznhy Novgorod.

46. **J.J. Rodríguez** and A. Verkhratsky. “Neuroglial alterations and recovery in Alzheimer´s disease”. FENS Featured Regional Meeting. 11th-14th September 2013. Prague. Czech Republic.

45. **J.J. Rodríguez** and A. Verkhratsky. “Neuroglial alterations during the progression of Alzheimer´s disease: A potential path from neurodegeneration to restoration”. 8th European Congress of Biogerontology. 10th -14th March 2013. Beer Sheva-Dead Sea. Israel.

44. **J.J. Rodríguez.** “Neuroglial alterations in Alzheimer's disease are concomitant with neurogenic impairments". 4th Conference of Mediterranean Neuroscience Society. 30th September-3rd October 2012. Istanbul, Turkey.

43. **J.J. Rodríguez** and A. Verkhratsky. “Neuroglial changes and recovery in Neurodegeneration: focus on Alzheimer´s disease.” Turkish Society of Physiological Science. 25th-29th September 2012. Trabzon, Turkey.

42. **J.J. Rodríguez.** “The dark side of Alzheimer´s disease: from the unknown to the Light” BIT's 3rd Annual World Congress of NeuroTalk. 18nd-20th May, 2012. Beijing, China.

41. **J.J. Rodríguez. “**Neurogenic impairment and recovery in Alzheimer's disease: a concomitant process with glial alterations”. 14th International Neuroscience Winter Conference. 10th-14thApril 2012. Sölden, Austria.

40. J.J. Rodríguez. "**Serotonin in Alzheimer´s disease: an old -new- player!**" Institute of Molecular Medicine. Medical School. University of Lisbon. 24th March 2012. Portugal. "

39. **J.J. Rodríguez.** "Neuroglial and neurogenic impairment and recovery in Alzheimer's disease: new approaches to understand its progression and treatment". 3rd AIMS Meeting. 23th-25th March 2012. Lisbon. Portugal.

38. **J.J. Rodríguez**. "Complex and associated astroglial and microglial changes during the progression of Alzheimer´s disease". 43rd Annual Meeting of the American Society for Neurochemistry (ASN) in the Pree-meeting workpshop: "Glial cells in (patho)physiology: Possible new targets for medical intervention". 3rd March 2012. Baltimore, MD, USA.

37. **J.J. Rodríguez**. "Neuroglial alterations and plasticity during the progression of Alzheimer´s disease". Instituto de Biología y Medicina Experimental (CONICET). 14th December, 2011. Buenos Aires, Argentina.

36. **J.J. Rodríguez**. "Neurogenic impairments and recovery in Alzheimer´s disease: a new therapeutical target?". Departamento de Química Biológica, Fac de Ciencias Exactas y Naturales, Universidad de Buenos Aires. 19th December, 2011. Buenos Aires, Argentina.

35. **J.J. Rodríguez**. "Neuronal and Neuroglial changes during the progresión of Alzheimer´s disease: pathological vs. plastic potential ". Glia Day. Center for Translational Neuromedicine. The University of Rochester. 11th November, 2011. NY, USA.

34. **J.J. Rodríguez**. "Astrocytes and Alzheimer's disease". 10th European meeting on glial cells in health and disease. 13th-17th September, 2011. Prague, Czech Republic.

33. **J.J. Rodríguez**. "Neuroglial role in the development and progress of Alzheimer´s disease: from God to Evil." Introductory course on glial biology. 10th European meeting on glial cells in health and disease. 13th-17th September, 2011. Prague, Czech Republic.

32. A. Verkhratsky, **J.J. Rodríguez,** V. Parpura "Chemical transmission in neuronal-glial networks" Joint Congress of FEPS and Turkish Society of Physiological Science. 3rd-7th September 2011. Istanbul, Turkey.

31. A. Verkhratsky, **J.J. Rodríguez,** V. Parpura "Calcium signalling in neuroglia" Joint Congress of FEPS and Turkish Society of Physiological Science. 3rd-7th September 2011. Istanbul, Turkey.

30. **J.J. Rodríguez**. "The forgotten and dark side of Alzheimer´s Disease: Neuroglial Pathology" Joint Congress of FEPS and Turkish Society of Physiological Science. 3rd-7th September 2011. Istanbul, Turkey.

29. **J.J. Rodríguez**. "Neuroglial alterations in neurodegeneration". "Reflexiones en Neurociencia: Integración y Desintegración del Cerebro / Reflexions in Neuroscience: Integration and Disintegration of the Brain." 13th-14th June, 2011. Bilbao, Spain.

28. **J.J. Rodríguez**. "Living with Alzheimer's and neuroscience: Transfer of the basic findings to the clinical and care application in the treatment of Alzheimer's disease". Open Information Session "Reflexiones en Neurociencia: Integración y Desintegración del Cerebro / Reflexions in Neuroscience: Integration and Disintegration of the Brain." 13th-14th June, 2011. Bilbao, Spain.

27. **J.J. Rodríguez**. "Living with Alzheimer's and neuroscience: Fundamental aspects of basic research into Alzheimer's disease". Open Information Session "Reflexiones en Neurociencia: Integración y Desintegración del Cerebro / Reflexions in Neuroscience: Integration and Disintegration of the Brain." 13th-14th June, 2011. Bilbao, Spain.

26. **J.J. Rodríguez**. "New key players in the progression of Alzheimer's disease and its therapeutics" BIT's 2nd Annual World Congress of NeuroTalk. 22nd-25th May, 2011. Dalian, China.

25. A. Verkhratsky, **J.J. Rodríguez**. "Ionotropic receptors in astroglia" Joint Conference of Czech and Slovak Neuroscience Societies. 19th-21st May, 2011. Smolenice, Slovakia.

24. **J.J. Rodríguez,** A. Verkhratsky. "Neuroglial and neurogenic alterations during the progression of Alzheimer's disease" Joint Conference of Czech and Slovak Neuroscience Societies. 19th-21st May, 2011. Smolenice, Slovakia.

23. **J.J. Rodríguez. "**Neurogenic changes during the progression of Alzheimer´s disease and its therapeutical potential". Biodonostia. 11th February, 2011. San Sebastian, Spain.

22. **J.J. Rodríguez**, A. Verkhratsky. "Neuroglia in neurodegeneration and Alzheimer's disease"13th International Neuroscience Winter Conference. 29th-March-2nd April, 2012. Sölden, Austria.

21. **J.J. Rodríguez. "**Neuroglial alterations during the progression of Alzheimer's disease". The Netherlands Institute for Neuroscience. 26th January, 2011. Amsterdam, Netherlands.

20. **J.J. Rodríguez**. "Astroglial atrophy and microglial recruitment during the progression of Alzheimer's disease". 11th November, 2010. Birmingham, AL. USA.

19. **J.J. Rodríguez**. "Neuronal and Glial alterations and interactions during the progression of Alzheimer's disease". Biophysics Society 29th September, 2010. Bilbao. Spain.

18. **J.J. Rodríguez**. "Differential neurogenic impairment during the progression of Alzheimer's disease". Institute for Neurosciences. 7th September, 2010. Montpellier, France.

17. **J.J. Rodríguez**. "New players in the Progression of Alzheimer's disease". San Sebastian Hospital. 25th May, 2010. San Sebastian, Spain.

16. **J.J. Rodríguez**. "The dark side of Alzheimer's disease: might be the light at the end of the tunnel?". Biogune/Ikerbasque Annual Meeting. March, 2010. Bilbao, Spain.

15. **J.J. Rodríguez**. "Glial atrophy and astrogliosis drive Alzheimer's disease related pathology. FEPS Annual Meeting. 12th-15th November, 2009 Ljubljana, Slovenia.

14. **J.J. Rodríguez**. "New concepts and mechanisms in the progression of Alzheimer's disease". Beijing International Neurological Forum. 4th-5th September, 2009. Beijing. China.

13. **J.J. Rodríguez**. "Plasticity Processes in the CNS: key to unravel the mechanisms of Alzheimer's disease progression". Kyoto Prefectural University of Medicine Kawaramachi-Hirokoji. Kyoto,. Japan. 01/09/2009.

12. **J.J. Rodríguez**. "Neurogenesis impairment and glial alterations in Alzheimer's Disease". Ushimado Marine Laboratory. Graduate School of Natural Science and Technology. Okayama University. Japan. 30/08/2009.

11. **J.J. Rodríguez**. "Striatal cannabinoid receptors (CB1R): relationship with m-opioid receptors". Laboratory of Information Science. Graduate School of Information Science. Tphoku University. Japan. 27/08/2009.

10. **J.J. Rodríguez**. "Increased ARC/ARG3-1 expression in spines, dendrites and glial cells in the rat dentate gyrus after LTP". Department of Physiology. Jichi Medical University. Japan. 25/08/2009.

9. **J.J. Rodríguez**. "Striatal cannabinoid receptors (CB1R): interactions with m-opioid receptors". Laboratory of Behavioral Endocrinology. University of Tsukuba. Tsukuba. Japan. 24/08/2009.

8. **J.J. Rodríguez**. "Changes in neurogenesis and glial plasticity during the progression of Alzheimer's Disease". Department of Anatomy and Neurobiology. Nippon Medical School. Tokyo. Japan. 20/08/2009.

7. **J.J. Rodríguez**. "LTP is associated with ARC/ARG3-1 enhanced expression in spines, dendrites and glia in the rat dentate gyrus". Department of Physiology. University of Occupational and Environmental Health. Kitakyushu. Japan. 18/08/2009.

6. **J.J. Rodríguez**. "Glial atrophy and astrogliosis drive AD-related pathology".Spring Hippocampal Research Conference. 14th-19th June, 2009 Verona, Italy.

5. **J.J. Rodríguez**. "Neuronal and Glial Plastic Alterations in Alzheimer's Disease". University of Birmingham. Birmingham. UK. 30/03/2009.

4. **J.J. Rodríguez**. "Neural mechanisms underlying synaptic plasticity in the hippocampal dentate gyrus". University of Urbino "Carlo Bo". Urbino. Italy. 10/07/2007.

3. **J.J. Rodríguez**. "Long term potentiation in the rat dentate gyrus increases Arc/Arg3.1 protein expression in spines, dendrites and glia". Institute of Experimental Medicine. Czech Academy of Sciences. Prague. Czech Republic. 26/06/2007.

2. **J.J. Rodríguez**. "Serotonin receptors in the hippocampus: from depression to Alzheimer's passing through neurogenesis". Society of Electron Microscope Technology 35 Year Anniversary Meeting. The Open University, Milton Keynes 27th-28th April 2005. UK.

1. **J.J. Rodríguez**. "Pre-embedding immunohistochemistry: better, worse? Just a different approach". 2nd Workshop Immunogold Silver Staining". King's College, London 6th-8th September 2004. UK.

INTERNATIONAL MEETING ORGANISING COMMITTEE (*Local &/or Scientific*)

2. **J.J. Rodríguez.** "10th European meeting on glial cells in health and disease." 13th-17th September, 2011. Prague, Czech Republic.

1. **J.J. Rodríguez,** A. Verkhratsky**.** "Reflexiones en Neurociencia: Integración y Desintegración del Cerebro / Reflexions in Neuroscience: Integration and Desinegration of the Brain." 13th-14th June, 2011. Bilbao, Spain.

SYMPOSIUM ORGANISER

10. **J.J. Rodríguez**. "Conmemoración del día Mundial de Alzheimer 2021. Commemoration of World Alzheimer's Day 2021. Reflexiones y Consideraciones Innovadoras en la Enfermedad de Alzheimer: de la Investigación al Paciente. Reflections and Innovative Considerations in Alzheimer's Disease: From Research to the Patient".

9. **J.J. Rodríguez**. "Neurogenesis relevance and interaction in aging and neurodegeneration: new ideas for understanding and treating pathology". FEPS Forum of European Physiology Society Meeting. 26th-29th August 2015. Kaunas. Lithuania.

8. **J.J. Rodríguez**. "Neuroglia in ageing and neurodegeneration". 25th Meeting of the International Society for Neurochemistry 23th-27th August 2015. Cairns. Australia.

7. **J.J. Rodríguez.** "Revealing the prominent role of neuroglia in neurodegeneration". FEPS Forum of European Physiology Society Meeting. 27th-30th August 2014. Budapest. Hungary.

6. **J.J. Rodríguez.** "Neuroglia in Neurodegeneration". FENS Featured Regional Meeting. 11th-14th September 2013. Prague. Czech Republic.

5. **J.J. Rodríguez.** "Neuroglia: the forgotten but emerging player in neurodegeneration". 4th Conference of Mediterranean Neuroscience Society. 30th September-3rd October 2012. Istanbul, Turkey.

4. **J.J. Rodríguez. "**Neurogenesis and Glial function and dysfunction in aging and neurodegeneration: the ultimate neural simbiosis". 14th International Neuroscience Winter Conference. 10th-14th, 2012. Sölden, Austria.

3. **J.J. Rodríguez.** "Neuroglial roots of neurodegenerative diseases". Joint Congress of FEPS and Turkish Society of Physiological Science. 3rd-7th September 2011. Istanbul, Turkey.

2. **J.J. Rodríguez**. "Neuronal and glial hippocampal plasticity in neurodegeneration and Alzheimer's disease". Spring Hippocampal Research Conference. 14th-19th June, 2009 Verona, Italy.

1**. J.J. Rodríguez**. "Glia in neurodegenerative processes". FEPS Annual Meeting. 12th-15th November, 2009 Ljubljana, Slovenia.

PRESENTATIONS AT CONGRESSES

108. O. Olivas, N. Basterrech, A. Arnaiz, L. Erkoreka, MI. Zamalloa, M.T. Moreno, N. Varela, E. Marín,S. Iñiguez; **J.J. Rodríguez**, A.Arrue. "Multilocus genetic risk score reflecting low dopaminergic signaling associated with obesity and eating habits in atypical antipsychotic treatment patients". 22nd WPA World Congress of Psychiatry. Bangkok, Thailand.

107. O. Olivas, N. Basterreche, L. Erkoreka, A. Arnaiz, M.T. Moreno-Calle, N. Varela, E. Marín, E. Gordo,S.Iñiguez**, J.J. Rodríguez**, E. Saez, A. Arrue. "Haplotype in histaminergic H1 receptor gene is associated with abdominal obesity in antipsychotic treatment patients". 35th ECNP congress 2022. Viena. austria.

106. **J.J. Rodríguez**, F. Zallo, E. Gardenal, M. Rodríguez- Carrillo, O. Ramírez- Penas, A. Arrue, A. Verkhratsky "Generalized and Concomitant astrocytic atrophyin sporadic and familiar Alzheimer´s disease". 34th ECNP Congress 2021. Lisbon. Portugal.

105. L. Erkoreka, N. Basterreche, O. Olivas, A. Arnaiz, M.I. Zamalloa, T. Moreno-Calle, N. Varela, E. Marin, E. Saez, **J.J Rodríguez-Arellano**, A. Arrue. "Plasma gamma-aminobutiric acid levels in schizophrenia patients: correlation with positive, negative nd global impression symptom severity". 34th ECNP Congress 2021. Lisbon. Portugal.

104. O. Olivas Gallego, N.. Basterreneche, A. Arnaiz, L. Erkoreka, M.I Zamalloa, M.T. Moreno, N. Varela, E. Marín, F. Lázaro, J. García, **J.J Rodríguez**, A. Arrue. "Polymorphysms in Dopamine D" receptor gene are associated with obesity in antipsychotic treatment patients; no relationship with eating habits". 34th ECNP Congress 2021. Lisbon. Portugal.

103. **J.J. Rodríguez**, F. Zallo, E. Gardenal, A. Verkhratsky. "Global Astrocytic Atrophy in Sporadic and Familiar Alzheimer´s Disease." Alzheimers Association International Conference. Los Angeles, 14th-18th July 2019. California. USA.

102. E. Gardenal, A. Verkhratsky, **J.J. Rodríguez**. "Expression of Calcium-Sensing Receptor (CaSR) in hippocampus increases during the progression of Alzheimer´s disease in the triple transgenic mouse model". Forum of European Neuroscience Society Meeting. Copenhagen, 2th-6th July 2016. Denmark.

101. **J. J. Rodríguez Arellano**, L. de la Pisa Niño, N. Marcos Muñoz, N. Villaverde Gonzalez, F. de Juan Diéguez, and A. Alvarez Roza. "Culinotherapy in Alzheimer's disease: new strategies and insights for associate non-pharmacological therapies". 25th Alzheimer Europe Conference. Ljubljana, 2nd-4th September 2015. Slovenia.

100. **J.J. Rodríguez**. "Neurogenic and gliogenic alterations and recovery in Alzheimer´s disease: a new view for understanding and tackling the disease". FEPS Forum of European Physiology Society Meeting. 26th-29th August 2015. Kaunas. Lithuania.

99. **J.J. Rodríguez**. "Morphological and metabolical changes in neuroglia during the progression of Alzheimer´s disease and ageing". 25th Meeting of the International Society for Neurochemistry 23th-27th August 2015. Cairns. Australia.

98. **J.J. Rodríguez Arellano**, S. Terzieva, C.Y. Yeh and A. Verkhratsky. "Hypertrophy of S100ß-POSITIVE astrocytic profiles in the Mouse modelo f Alzheimer´s disease". 9th FENS Forum of European Neuroscience Society Meeting. Milan July 5th-9th 2014. Italy.

97. **J.J Rodríguez**, S. Terzieva, M. Olabarria, A.Verkhratsky. "Enriched environment and physical activity reverse astroglial atrophy in the hippocampus of the triple-transgenic model of AD". XI European Meeting on Glial Cells in Health and Disease. Berlin. 3th – 6 th July 2013. Germany.

96. M. Cicanic, L. Vargova, M.Kulijewicz-Nawrot, **J.J. Rodríguez**, Eva Sykova. "Changes of the extracellular space diffusion parameters during aging in a triple transgenic animal model of Alzheimer's disease". XI European Meeting on Glial Cells in Health and Disease. Berlin. 3th – 6 th July 2013. Germany.

95. A.A. Grolla, A.A. Genazzani, P.L Canonico, **J.J. Rodríguez**, J.A. Sim, A. Verkhratsky. "Different effects of Amyloid-b on entorhinal cortex and hippocampal astrocytes in culture". Different effects of Amyloid-b on entorhinal cortex and hippocampal astrocytes in culture. New Orleans, LA. 13th-17th October, 2012. USA.

94. M. Kulijewicz-Nawrot, E. Syková, A. Verkhratsky, **J.J. Rodríguez**. "Astrocytic morphological and functional alterations in the prefrontal cortex during the progression of Alzheimer's disease in the 3xTG-AD animal model." 8th Forum of European Neuroscience, Barcelona. 14th-18th July 2012. Spain

93. **J.J. Rodríguez,** A. Verkhratsky. "Alzheimer's disease associated neuroglia and neurogenic alterations" 41st Annual Meeting of the Society for Neuroscience. Washington, DC. 12th-16th November, 2011. USA.

92. **Rodríguez J.J**, Yeh CY, Olabarria M., Noristani H.N., Verkhratsky A. "Neurogenesis: A New Key Player in the Progression of Alzheimer's Disease and its Therapeutics" 11th Alzheimer's Association International Conference on Alzheimer's Disease, Paris, 16th-21st July 2011. France

91. Olabarria M, Noristani HN, Yeh CY, Verkhratsky A, **Rodríguez JJ**. "Concomitant astrocytic cytoskeletal atrophy and glutamine synthetase decrease during the progression of Alzheimer's disease" 10th Alzheimer's Association International Conference on Alzheimer's Disease, Honolulu, Hawaii. 10th-15th July 2010. USA.

90. Noristani H., Olabarria M., Verkhratsky A., **Rodríguez J.J.** "Serotonin fibre sprouting and increase in serotonin transporter immunoreactivity in the CA1 area of hippocampus in a mouse model of Alzheimer's disease is concomitant with an increase in serotonergic axons and terminals: a light and electron microscopy study". 10th Alzheimer's Association International Conference on Alzheimer's Disease, Honolulu, Hawaii. 10th-15th July 2010. USA.

89. Yeh CY, Olabarria M, Noristani HN, Verkhratsky A, **Rodríguez JJ.** "Early astrocytic atrophy in the entorhinal cortex of a triple transgenic animal model of Alzheimer's disease" 10th Alzheimer's Association International Conference on Alzheimer's Disease, Honolulu, Hawaii. 10th-15th July 2010. USA.

88. Kulijewicz-Nawrot M, Sykova E, Verkhratsky A, **Rodríguez JJ.** "Medial prefrontal cortex astrocytes atrophy in Alzheimer's disease". 10th Alzheimer's Association International Conference on Alzheimer's Disease, Honolulu, Hawaii. 10th-15th July 2010. USA.

87. Medvedev NI, Popov VI, **Rodríguez JJ**, Dallérac G, Davies H, Gabbott PL, Laroche S, Kraev IV, Doyère, Stewart MG. "Alteration in curvature of postsynaptic densities and apposition zones in dentate gyrus following LTP and LTD are impaired by the NMDA receptor atogonist CPP". 7th Forum of European Neuroscience, Amsterdam. 3th-7th July 2010. The Netherlands.

86. Kulijewicz-Nawrot M, Sykova E, Verkhratsky A, **Rodríguez JJ.** "Early and sustained astrocytic atrophy in the medial prefrontal cortex during the progression of Alzheimer's disease in a triple transgenic animal model". 7th Forum of European Neuroscience, Amsterdam. 3th-7th July 2010. The Netherlands.

85. Yeh CY, Olabarria M, Noristani HN, Verkhratsky A, **Rodríguez JJ.** "Astrocytes in the entorhinal cortex show early atrophy in a triple transgenic animal model of Alzheimer's disease". 7th Forum of European Neuroscience, Amsterdam. 3th-7th July 2010. The Netherlands.

84. Olabarria Larizgoitia M, Noristani HN, Yeh CY, Verkhratsky A, **Rodríguez JJ. "**Astrocytic cytoskeleton atrophy and glutamine synthetase decrease in Alzhiemer's disease". 7th Forum of European Neuroscience, Amsterdam. 3th-7th July 2010. The Netherlands.

83. Noristani HN, Olabarria M, Yeh CY, Verkhratsky A, **Rodríguez JJ.** "Morphological and ultrastructural study of serotonergic system in a triple transgenic mouse model of Alzheimer's disease". 7th Forum of European Neuroscience, Amsterdam. 3th-7th July 2010. The Netherlands.

82. Noristani H., Olabarria M., Verkhratsky A., **Rodríguez J.J.** "Increased hippocampal serotonin transporter protein in a triple trangenic model of Alzhemier's disease". 39th Annual Meeting of the Society for Neuroscience.Chicago, Illinois. 17th-21st October 2009. USA.

81. Olabarria M., Noristani H.N, Verkhratsky A., **Rodríguez J.J.** "Combined astrocytic atrophy & hypertrophy in Alzheimer's disease." 39th Annual Meeting of the Society for Neuroscience.Chicago, Illinois. 17th-21st October 2009. USA.

80. Olabarria M., Noristani H., Chvatal A., Verkhratsky A., **Rodríguez J.J.** "Differing astrocytic cytoskeleton alterations in Alzheimer's disease". 9th European Meeting on Glial Cells in Health and Disease. Paris. 8th-12th September 2009.

79. Noristani H., Olabarria M., Verkhratsky A., **Rodríguez J.J.** "Changes in serotoninergic neurotransmission in a triple transgenic mouse model of Alzheimer's disease". 20th British Neuroscience Association Meeting, Liverpool 19thrd-22nd April 2009. UK.

78. Olabarria M., Noristani H., Verkhratsky A., **Rodríguez J.J.** "Astrocytic plastic alterations in Alzheimer's disease". 20th British Neuroscience Association Meeting, Liverpool 19thrd-22nd April 2009. UK.

77. V. Doyère, G.M. Dallérac, M. Tabuchi, H.A. Davies, M.G. Stewart, **J.J. Rodríguez** . "Expression of PSA-NCAM following induction of LTP in the dentate gyrus in vivo". 37th Annual Meeting Society for Neuroscience. San Diego, California. 3rd-7th November 2007. USA.

76. **J.J. Rodríguez**, M. Tabuchi, J. Reid, J. Gigg, F.M. LaFerla, S. Oddo, A. Verkhratsky, S.M. Allan. "Impaired adult neurogenesis in the dentate gyrus of a triple transgenic animal model of Alzheimer's disease". 37th Annual Meeting Society for Neuroscience. San Diego, California. 3rd-7th November 2007. USA.

75. W. B. Hoover, R. Vertes, **J.J. Rodríguez** . "Raphe efferents to the reticular nucleus of the thalamus in the rat". 37th Annual Meeting Society for Neuroscience. San Diego, California. 3rd-7th November 2007. USA.

74. D. Dupret, A. Fabre, M.D. Döbrössy, A. Panetier, **J.J. Rodríguez**, S. Lamarque, V. Lemaire, S.H.R. Oliet, P.-V. Piazza, D.N. Abrous. "Spatial learning depends on both the addition and removal of new hippocampal neurons". 37th Annual Meeting Society for Neuroscience. San Diego, California. 3rd-7th November 2007. USA.

73. **J.J. Rodríguez**, H.A. Davies, M.L. Errington, D. Kuhl, T.V.P. Bliss and M.G. Stewart. "Ultrastructural evidence of Arg 3.1/Arc in hippocampal dentate gyrus astrocytes: co-localization with glial fibirillary acidic protein". 36th Annual Meeting Society for Neuroscience. Atlanta , Georgia. 14th-18th October 2006. USA.

72. **J.J. Rodríguez**, H.A. Davies, M.L. Errington, D. Kuhl, T.V.P. Bliss and M.G. Stewart. "Expression of Arg 3.1/Arc in hippocampal dentate gyrus astrocytes: ultrastructural evidence and co-localization with glial fibirillary acidic protein". 5th Forum of European Neuroscience. Vienna, 8th-12th July 2006. Austria.

71. N.Medvedev, V. Doyère, **J.J. Rodríguez**, H.A. Davies, P.L.A. Gabbott, S. Laroche, V.I. Popov, M.G. Stewart. "Long-term changes in dendritic spines and postsynaptic density after LTP in the dentate gyrus of awake rats: 3-D reconstruction from serial ultrathin sections". 5th Forum of European Neuroscience. Vienna, 8th-12th July 2006. Austria.

70. D. Dupret, **J.J. Rodríguez**, M.D. Döbrössy, S. Lamarque, M.G. Stewart, P.-V. Piazza, D. N. Abrous. "Learning-induced apoptosis in the hippocampus mediates spatial memory". 5th Forum of European Neuroscience. Vienna, 8th-12th July 2006. Austria.

69. M.G. Stewart, V.I. Popov, **J.J. Rodríguez,** H.A. Davies. "Ultrastructural studies of changes in synapses aand spines in the dentate gyrus of rat hippocampus after LTP induction in vivo: A 3-dimensional and immunocytochemical study. 14th Annual Meeting of the Israel Society for Neuroscience. Eilat., 11th-13th December 2005. Israel.

68. W. Mayo, V. Lemaire, Malaterre J., **J.J. Rodríguez,** M. Cayre, M.G. Stewart, M. Kharouby , G. Rougon, M. Le Moal, P.V. Piazza, N.D. Abrous. "Pregnenolone sulfate enhances neurogenesis and PSA-NCAM in young and aged hippocampus". 35th Annual Meeting Society for Neuroscience. Washington D.C., 12th-16th October 2005. USA.

67. **J.J. Rodríguez,** N. Medvedev, H.A. Davies, C.M. Tigaret, C.J. Peddie, R. Schoepfer and M.G. Stewart. "Distribution of AMPA GluR1 and NMDAR1 subunits and spine morphology in dentate gyrus of GRIA 2 knock-out mice: an EM immunohistochemical and 3-D study". 18th British Neuroscience Association Meeting, Brighton 3rd-6th April 2005. UK.

66. **J.J. Rodríguez,** V. Popov, H.A. Davies, I.V. Kraev, D. Banks, M.I. Cordero, C. Sandi and M.G. Stewart. "Neurogenesis in adult dentate gyrus: evidence of mitosis in differentiated granule cells following spatial learning". 18th British Neuroscience Association Meeting, Brighton 3rd-6th April 2005. UK.

65. M.G. Stewart, N. Medvedev, V. Popov, R. Schoepfer, H.A. Davies, K. Murphy, G. Dallérac, R. Schoepfer and **J.J. Rodríguez**. "Ultrastructural changes in synapses and spines in CA1 stratum radiatum of adult mouse hippocampus after chemical LTP: a 3-D study". 18h British Neuroscience Association Meeting, Brighton 3rd-6th April 2005. UK.

64. H.S. Donohue, P.L.A. Gabbott, H.A. Davies, M.I. Cordero, C. Sandi, **J.J. Rodríguez**, C.J. Peddie, N. Medvedev, V.I. Popov and M.G. Stewart. "Stress increases axo-spinous post-synaptic density size in CA1 stratum lacunosum-moleculare: a three dimensional ultrstructural study". 18th British Neuroscience Association Meeting, Brighton 3rd-6th April 2005. UK.

63. H.S. Donohue, P.L.A. Gabbott, H.A. Davies, M.I. Cordero, C. Sandi, **J.J. Rodríguez**, F.M. Colyer, M.G. Stewart. "Volume measurements show that synaptic density is unchanged in ca1 rat hippocampus after chronic restraint stress but post-synaptic density size increases". 1st International Meeting of the Haifa Forum for Brain and Behavior on: Neurobiology and Modulation of Memory Formation. Haifa, 9th-11th January 2005. Israel.

62. **J.J. Rodríguez**, H.A. Davies, C.M. Tigaret, R. Schoepfer and M.G. Stewart. "Distribution of AMPA GluR1 and NMDA NR1 glutamate receptor subunits in the dentate gyrus of Gria2 knock-out mice". 34th Annual Meeting Society for Neuroscience. San Diego, California, 23th-27th October 2004. USA.

61. M.G Stewart, N. Medvedev, V. Popov, H.A. Davies, K. Murphy, G. Dallerac and **J.J. Rodríguez**. "Morphological changes in synapses and spines in CA1 in acute slices of mouse hippocampus potentiated via chemically induced LTP: a 3-D electron microscope study". 34th Annual Meeting Society for Neuroscience. San Diego, California, 23th-27th October 2004. USA.

60. C.J. Peddie, M.G. Stewart and **J.J. Rodríguez**. "Ultrastructural localization of serotonin 5-HT1A/1B/2A receptors with the glutamate receptor subunit NR1 in the dentate gyrus of the rat hippocampus". Serotonin Club Meeting (Satellite meeting of the Federation of the European Pharmacological Societies). Porto, 17th-19th July 2004. Portugal.

59. **J.J. Rodríguez**, H.A. Davies, A.T. Silva, De Souza I.E.J., C.J. Peddie, F.M. Colyer, A. Fine, M.L. Errington, T.V.P. Bliss and M.G. Stewart . "Arc expression in the hippocampal dentate gyrus after LTP: an ultrastructural dynamic study". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

58. C.J. Peddie, M.G. Stewart and **J.J. Rodríguez**. "Ultrastructural localization of serotonin 5-HT1B receptors with the glutamate receptor subunit NR1 in the dentate gyrus of the rat hippocampus". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

57. H.S. Donohue, P.L.A. Gabbott, H.A. Davies, M.I. Cordero, **J.J. Rodríguez**, C.J. Peddie, F.M. Colyer, C. Sandi and M.G. Stewart. "Stress-induced changes in synaptic morphology in rat CA1 hippocampus". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

56. C.M. Tigaret, A. Thalhammer, **J.J. Rodríguez**, C.G. Specht, M.G. Stewart, and R. Schoepfer. "Dynamics of AMPA receptor subunit GluR2 expression at the cell surface". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

55. M.G. Stewart, V.I. Popov, H.A. Davies, C. Sandi, I.V. Kraev, V.V. Rogachevski, **J.J. Rodríguez** and M.I. Cordero. "The effects of stress and spatial learning on synaptic and dendritic structures in mammalian hippocampus: a quantitative electron microscopy and 3-dimensional reconstruction study". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

54. M.I. Cordero Campaña, H.A. Davies, **J.J. Rodríguez**, C.J. Peddie, and C. Sandi. "Amygdalar PSA-NCAM regulation following water maze learning and chronic stress". 4th Forum of European Neuroscience. Lisbon, 10th-14th July 2004. Portugal.

53. M.I. Cordero, H.A. Davies, **J.J. Rodríguez**, C.J. Peddie, C. Sandi and M.G. Stewart. "Differential regulation of PSA-NCAM in amygdalar nuclei following spatial learning and chronic restraint stress". 33rd Annual Meeting Swiss Society for Neuroscience. Laussane, 17th Jannuary 2004. Switzerland.

52. C.M. Tigaret, Y. Rudhard, A. Thalhammer, G.F. Rast, **J.J. Rodríguez**, M.G. Stewart and R. Schoepfer. "Ampa receptors made visible with enhanced green fluorescent protein-tagged ampa receptor subunit glur2". 1st International Conference of the National Neurosciences Society of Romania. Bucharest, 26th-27th September 2003. Romania.

51. V.M. Pickel, J. Chan, T.L. Kash, **J.J. Rodríguez** and K. Mackie. "Co-localization of cannabinoid-1 (CB1) and mu-opioid receptors in the nucleus accumbens". 33rd Annual Meeting Society for Neuroscience. New Orleans, Louisiana, 8th-12th November 2003. USA.

50. C.J. Peddie, M.G. Stewart and **J.J. Rodríguez**. "Differential targeting of serotonin 5HT1A receptors with glutamate NMDA and AMPA receptors in the dentate gyrus of the rat hippocampus". 33rd Annual Meeting Society for Neuroscience. New Orleans, Louisiana, 8th-12th November 2003. USA.

49. **J.J. Rodríguez**, H.A. Davies, A.T. Silva, I.E.J. DeSouza, C.J. Peddie, F.M. Colyer, A. Fine, M.L. Errington, T.V.P. Bliss and M.G. Stewart. "Dynamic changes in arc distribution in the dentate gyrus after induction of LTP: an ultrastructural study". 33rd Annual Meeting Society for Neuroscience. New Orleans, Louisiana, 8th-12th November 2003. USA.

48. M.I. Cordero, **J.J. Rodríguez**, H.A. Davies, C.J. Peddie, C. Sandi and M.G. Stewart. "Spatial learning reverses the effect of chronic restraint stress on the expression of PSA-NCAM in the adult rat hippocampus". 33rd Annual Meeting Society for Neuroscience. New Orleans, Louisiana, 8th-12th November 2003. USA.

47. H.A. Davies, M.I. Cordero, **J.J. Rodríguez**, V.I. Popov C.Sandi and M.G. Stewart. "Effects of chronic stress and learning on 3-dimensional synapse and spine morphometry in CA3 of rat hippocampus". 35th Annual General Meeting of the EBBS. Barcelona, 17th-20th September 2003. Spain.

46. M.I. Cordero, **J.J. Rodríguez**, H.A. Davies, C.J. Peddie, C. Sandi and M.G. Stewart. "Differential regulation of PSA-NCAM in CA3-mossy fibres of rat hippocampus induced by chronic stress and spatial learning". 35th Annual General Meeting of the EBBS. Barcelona, 17th-20th September 2003. Spain.

45. C.M Tigaret, **J.J. Rodríguez**, A. Fine, M.G. Stewart and R. Schoepfer "Visualization and analysis of synaptic localization of enhanced green fluorescent protein-tagged AMPA receptor GluR2 subunit".. BBSRC Neurone Initiative Workshop. Manchester 25th -26th June 2003. UK.

44. C.J. Peddie, A.J. Milner, K. P. S. J. Murphy, M.G. Stewart and **J.J. Rodríguez**. "Subcellular distribution of NMDA receptor subunits in hippocampal CA1 pyramidal neurons following the induction of long term potentiation (LTP)". 17th British Neuroscience Association Meeting, Harrogate, 13th-16th April 2003. UK.

43. C.J. Peddie, M.G. Stewart and **J.J. Rodríguez**. "Ultrastructural localization of serotonin 5-HT2A receptor with glutamate NMDA and AMPA receptors in the denatate gyrus of the rat hippocampus". 17th British Neuroscience Association Meeting, Harrogate, 13th-16th April 2003. UK.

42. H.A. Davies, M.G. Stewart and **J.J. Rodríguez**. "Subcellular localization of EAAC1 neuronal glutamate transporter in rat dentate gyrus: relationship with PSA-NCAM neural cell adhesion molecule" 17th British Neuroscience Association Meeting, Harrogate, 13th-16th April 2003. UK.

41. M.I. Cordero, **J.J. Rodríguez-Arellano**, H.A. Davies, C.J. Peddie, C. Sandi and M.G. Stewart. "Chronic restraint stress and spatial learning induce contrasting patterns on PSA-NCAM expression in the adult rat dentate gyrus and enthorrinal cortex". 17th British Neuroscience Association Meeting, Harrogate, 13th-16th April 2003. UK.

40. C.J.Peddie, M.G. Stewart and **J.J. Rodríguez**. "Ultrastructural localization of 5HT2A receptors in the dentate gyrus of the rat hippocampus: relationship and coexistence with AMPA and NMDAR glutamate receptors." 32nd Annual Meeting Society for Neuroscience. Orlando, Florida, 2nd-7th November 2002. USA.

39. M.G. Stewart, H.A. Davies, M.I. Cordero, **J.J. Rodríguez** and C.Sandi "Effects of chronic stress and learning on cognitive function and CA3 synaptic morphometry.". 32nd Annual Meeting Society for Neuroscience. Orlando, Florida, 2nd-7th November 2002. USA.

38. H.A. Davies, M.G. Stewart and **J.J. Rodríguez**. "Ultrastructural localization of EAAC1 neuronal glutamate transporter and PSA-NCAM neural cell adhesion molecule in the rat dentate gyrus." 32nd Annual Meeting Society for Neuroscience. Orlando, Florida, 2nd-7th November 2002. USA.

37. **J.J. Rodríguez**, A. T. Silva, H.A. Davies, I.E.J. De Souza, A. Fine, M.L. Errington, T.V. Bliss and M.G. Stewart. "Ultrastructural localization of Arc in the hippocampal dentate gyrus after LTP." 32nd Annual Meeting Society for Neuroscience. Orlando, Florida, 2nd-7th November 2002. USA.

36. C.M Tigaret, Y. Rudhard, A. Thalhammer, G.F. Rast, **J.J. Rodríguez**, A. Fine, M.G. Stewart and R. Schoepfer. "Visualization and analysis of synaptic localization of enhanced green fluorescent protein-tagged AMPA receptor GluR2 subunit." 32nd Annual Meeting Society for Neuroscience. Orlando, Florida, 2nd-7th November 2002. USA.

35. **J.J. Rodríguez**, and M.G. Stewart. "Ultrastructural localization of 5HT1B serotonin receptors in the rat hippocampal CA1 and CA3 regions: relationship NMDAR1 glutamate receptors". 3rd Forum of European Neuroscience. Paris, 13th-17th July 2002. France.

34. A. Silva-Fletcher, I.E.J. De Souza, **J.J. Rodríguez**, H. Davies and M.G. Stewart. "Ultrastructural localisation of the immediate early gene Arc in the rat dentate gyrus". 3rd Forum of European Neuroscience. Paris, 13th-17th July 2002. France.

33. **J.J. Rodríguez**, K. Zhang, V.M. Pickel and A. Alonso-Rodríguez. "Ultrastructural localization of stanniocalcin in the rat cerebellar purkinje cells". 31st Annual Meeting Society for Neuroscience. San Diego, CA, 10th-15th November 2001. USA.

32. **J.J. Rodríguez**, K. Mackie and V.M. Pickel. "Ultrastructural localization of CB1 Cannabinoid and μ-opioid receptors in the patch compartment of the rat caudate-putamen nucleus". 30th Annual Meeting Society for Neuroscience. New Orleans, LA, 4th-9th November 2000. USA.

31. **J.J. Rodríguez**, K. Mackie and V.M. Pickel. "Differential targeting of CB1 and μ-opioid receptors in the rat striatal patch". INRC 2000 Annual Meeting. Seattle, Washington, 15th-20th July 2000. USA.

30. V. Pace, **J.J. Rodríguez**, J. Wood and P-G. Germann. "Inhibition of the tumour growth and metastatic spread of a singenic endometrial carcinoma in DA/Han rat by an orally-administered novel matrix metalloproteinase (MMP) inhibitor". 84th Annual Meeting of the German Society of Pathology. Kiel, 7th-10th June 2000. Germany.

29. **J.J. Rodríguez**, D.R. Garcia and V.M. Pickel. "Colocalization of 5-hydroxytryptamine$_{2A}$ and N-methyl-D-aspartate receptors in rat motor and limbic striatum". 29th Annual Meeting Society for Neuroscience. Miami Beach, Florida, 23th-28th October 1999. USA.

28. J. Hellmann, R. Bahnemann, E. Hartmann, T. Nolte, **J.J. Rodríguez** and G. Zeller. "Harmonization of inter-laboratory staining procedures". 17th Meeting of the European Society of Veterinary Pathology. Nantes, 14th-17th September 1999. France.

27. P. Brander Weber, R. Bahnemann and **J.J. Rodríguez**. "Criteria establishment for cell proliferation assessment in the liver: photo-guide as a tool". 17th Meeting of the European Society of Veterinary Pathology. Nantes, 14th-17th September 1999. France.

26. K.G. Petry, **J.J. Rodríguez**, W. Mayo, M.F. Montaron, D.N. Abrous, M. Le Moal and A.I. Boullerne. "Anti-NO-cysteine antibodies are predictive markers for symptomes in EAE". 28th Annual Meeting Society for Neuroscience. Los Angeles, CA. 7th –1st November 1998. USA.

25. **J.J. Rodríguez** and V.M. Pickel. "Chronic haloperidol increases NMDA-immunoreactive dendrites and spines in the rat caudate-putamen nucleus". 28th Annual Meeting Society for Neuroscience. Los Angeles, CA. 7th-12th November 1998. USA.

24. D.N. Abrous, M.F. Montaron, V. Lemaire, **J.J. Rodríguez**, K.G. Petry, M. Marinelli, G. Rougon, W. Mayo and M. Le Moal. "Regulation of neurogenesis and PSA-NCAM by glucocorticoids in the rat hippocampus: implication for ageing". 5th Conference of the Institute of Developmental Neuroscience and Aging. Cagliari, Sardinia, 16th-19th October 1998. Italy.

23. D.N. Abrous, M.F. Montaron, **J.J. Rodríguez**, K.G. Petry, C. Aurousseau, M. Marinelli, G. Rougon and M. Le Moal. "Regulation of the expression of the polysialylated form of neuronal cell adhesion molecule by glucocorticoids in the rat hippocampus". International Conference on Polysialic acid Biochemestry: Cell Biology and Diseases. Ile des Embiez, 2nd-6th October 1998. France.

22. D.N. Abrous, **J.J. Rodríguez**, M. Le Moal, P.C. Moser and P. Barneoud. "Effects in mild traumatic brain injury (TBI) on immunoreactivity for the inducible transcription factor (ITFs) c-fos, c-jun, jun-B and krox 24 in cerebral regions associated with conditioned fear responding (CFR)". 1998 Forum of European Neuroscience. Berlin, 27th June-1st July 1998. Germany.

21. K.G. Petry, **J.J. Rodríguez**, W. Mayo, C. Medina, D.N. Abrous, M. Le Moal and A.I. Boullerne. "Anti-NO-cysteine antibodies are predictive markers for symptomes in EAE". 1998 Forum of European Neuroscience. Berlin, 27th June-1st July 1998. Germany.

20. H. Becq, **J.J. Rodríguez**, D.N. Abrous, A. Enjalbert and J.P. Herman. "Development of embryonic dopaminergic neurons implanted onto organotypic striatalm slices" 27th Annual Meeting Society for Neuroscience. New Orleans, La. 25th-30th October 1997. USA.

19. M.F. Montaron, **J.J. Rodríguez**, C. Aurousseau, M. Le Moal, P. Barnéoud and D.N. Abrous."Behavioural recovery after unilateral lesion of the dopaminergic (DA) mesotelencephalic pathway: effect of post-lesion delay, training, DA grafts and neonatal lesion". 27th Annual Meeting Society for Neuroscience. New Orleans, La. 25th-30th October 1997. USA.

18. **J.J. Rodríguez**, S. Premier, M.F. Montaron, C. Aurousseau, M. Marinelli, K.G. Petry, G. Rougon, M. Le Moal and D.N. Abrous. "Corticosterone modulates neurogenesis and PSA-NCAM expression in the Dentate Gyrus: Implication for ageing". 27th Annual Meeting Society for Neuroscience. New Orleans, La. 25th-30th October 1997. USA.

17. K.G. Petry, **J.J. Rodríguez**, W.Mayo, D.N. Abrous, C. Medina, M. Le Moal et A.I. Boullerne. "Les anticorps anti-NO-cystéine: un marqueur précoce de l'evolution pathologique dans l'encéphalomyélite allergique expérimentale (EAE)". 3e Colloque de la Société des Neurosciences. Bordeaux 25th-28th May 1997. France.

16. M.F. Montaron, K.G. Petry, **J.J. Rodríguez**, G. Rougon, M. Marinelli, M Darnaudéry, S. Premier, W. Mayo, M. Le Moal et D.N. "Influence du viellisement sur l'expression de facteurs de plasticité, les PSA-NCAM". Abrous.3e Colloque de la Société des Neurosciences. Bordeaux 25th-28th May 1997. France.

15. S. Premier, **J.J. Rodríguez**, M.F. Montaron, M. Marinelli, C. Aurousseau, M. Le Moal et D.N. Abrous."La corticosterone inhibe l'expression de PSA-NCAM dans l'hippocampe de rat". 3e Colloque de la Société des Neurosciences. Bordeaux 25th-28th May 1997. France.

14. D.N. Abrous, **J.J. Rodríguez**, M.F. Montaron, C. Aurousseau, M. Le Moal et P. Barneoud. "Restauration fonctionnelle spontanée après lesion unilatérale complète de la voie dopaminergique nigrostriée". 3e Colloque de la Société des Neurosciences. Bordeaux 25th-28th May 1997. France.

13. **J.J. Rodríguez**, M.F. Montaron, C. Aurousseau, M. Le Moal et D.N. Abrous."Effet de la cocaïne sur l'expression des genes des genes de réponse precoce chez des rats porteurs de transplants dopaminergics intra-striataux". 3e Colloque de la Société des Neurosciences. Bordeaux 25th-28th May 1997. France.

12. "Effect of cocaine treatment on c-fos expression in rats with intrastriatal dopaminergic grafts". **J.J. Rodríguez**, M.F. Montaron, C. Aurousseau, M. Le Moal and D.N. Abrous. The 6th International Neural Transplantation Meeting. San Diego, CA. 13th-16th February 1997. USA.

11. M. Monzón, J.L. Arbelo, M.M. Romero, M.L. Plaza, C. Yanes, **J.J.Rodríguez**, M.I. Alvarez, L. Rivas and A. Toledano. "Long term gliosis in a rat Alzheimer model". Second European Meeting on Glial Cell Function in Health and Disease. Arcachon 21st-25th April 1996. France.

10. A.Toledano, **J.J. Rodríguez Arellano**, M.I. Alvarez, M.A. Carrillo and L. Rivas. "Estudio Ultraestructural de las Alteraciones Involutivas y de las Adaptativas en los Glomerulos Cerebelosos Seniles". V National Congress of the Spanish Society of Cellular Biology. Badajoz 14 th-17th December 1993. Spain.

9. **J.J. Rodríguez Arellano**, M.I. Alvarez, M.A. Carrillo, L. Rivas and A.Toledano. "Alteraciones Ultraestructurales del Núcleo Basalis inducidas por Neurotoxinas". V National Congress of the Spanish Society of Cellular Biology. Badajoz 14th-17th December 1993. Spain.

8. A. Toledano, L. Rivas, **J.J. Rodríguez Arellano** and M.I. Alvarez. "Alteraciones Plásticas en los Glómerulos Cerebelosos Seniles. Estudio Estructural". III National Congress of Histology. Jaen 28th-30th October 1993. Spain.

7. **J.J. Rodríguez Arellano**, M. I. Alvarez, M.A. Carrillo, L. Rivas, M.L. Bentura and A. Toledano. "Estudio Ultraestructural de las Alteraciones del Núcleo Basalis inducidas por Neurotoxinas". III National Congress of Histology. Jaen 28th-30th October 1993. Spain.

6. L. Rivas, M.I. Alvarez, **J.J. Rodríguez**, A. Pérez-Esteban and J. Murube. "Pruebas de Diagnóstico en Pacientes con Keratoconjunctivitis sicca". III Congress of the International Society of Dakryology. Madrid 25th-26 th June 1993. Spain.

5. L. Rivas, **J.J. Rodríguez** and M.A. Oroza. "Pruebas de Diagnóstico Ocular en Keratoconjunctivitis Sicca con y sin Asociación del Síndrome de Sjögren". III Congress of the Aragones Society of Ophthalmology. Zaragoza 23rd-24th October 1992. Spain.

4. M.I. Alvarez, L. Rivas, **J.J. Rodríguez**, M.A. Oroza and M.A. Alonso. "Citología de Impresión en el Ojo Seco Mucodeficiente". Sociedad Oftalmológica de Madrid. Autónoma's University of Madrid. 7th May 1991. Spain.

3. **J.J. Rodríguez**, L. Rivas, M.A. Oroza, M.I. Alvarez and Ch. García. "Glándulas Seromucosas y Cilios en el Saco Lagrimal". Sociedad Oftalmológica de Madrid. Autónoma's University of Madrid. 7th May 1991. Spain.

2. L. Rivas and **J.J. Rodríguez**. "Glándulas Serosas en el Saco Lagrimal". LXVI National Congress of the Spanish Society of Ophthalmology. Madrid 30th September-4th October 1990. Spain.

1. **J.J. Rodríguez**, M.I. Alvarez and M.A. Oroza. "Funcionalidad del Saco Lagrimal". Sociedad Oftalmológica de Madrid. Autónoma's University of Madrid, 3rd April 1990. Spain.

DIRECTED/SUPERVISED AND AWARDED Ph.D. THESIS

5. "Calcium Sensing Receptor, Calcium Binding Proteins and astrocytic changes in Alzheimer's disease". **Emanuela Gardenal**. Universita' degli studi di Verona and University of the Basque Country. Italy and Spain. May 2017.

4. "Astrocytic changes during the progression of Alzheimer´s disease in the mouse prefrontal cortex." **Magdalena Kulijewicz-Nawrot**. Medical Faculty, Prague Charles University. Czech Republic. October-November 2013.

3. "Cortical astroglial atrophy in ageing and Alzheimer´s disease." ***Chia-Yu Yeh***. Faculty of Life Sciences. The University of Manchester. UK. December 2012- January 2013.

2. "Altered serotonergic neurotrasnmission as a main player in the pathophysiology of Alzheimer´s disease :structural and ultrastructural studies in a triple transgenic mouse model of the disease". ***Harun Najib Noristani***. Faculty of Life Sciences. The University of Manchester. UK. May-June 2012.

1. "Pathophysiological adaptation and role of astrocytes in Alzheimer´s disease: a longitudinal analysis in a triple transgenic mouse model". ***Markel Olabarria Larizgoitia***. Faculty of Life Sciences. The University of Manchester. UK. October-November 2011.

MEMBER OF Ph.D. THESIS JURY

1. "Estudio del efecto del acido graso de diseño LP226 en un modelo murino transgenico de la enfermedad de Alzheimer (5XFAD). ***Maria Antònia Fiol de Roque***. Universidad de las Islas Baleares. July 2017.

2. "Impact dune exposition au fer sur la transmission glutamatergique et le metabolisme de lÁPP: implication dans la maladie d´Alzheimer". ***Javier Becerril Ortega***. U.F.R. de Médicine. Université de Caen/Basse-Normandie. France. December 2010.

3. " Distribución subcelular de receptors opioides mu y delta en perfiles noradrenérgicos y gabaérgicos del locus coeruleus del gato. Implicaciones en la regulación del ciclo vigilia-sueño". ***Omar Fernando Robayo Avendaño***. Facultad de Medicina. Universidad Autónoma de Madrid. Spain. December 2010.

4. "Inervación hipocretinérgica/orexinérgica de las neuronas mesopontinas que proyectan a la corteza prelímbica de la rata. Implicaciones en el ciclo vigilia-sueño. ***Esther del Cid Pellitero***. Facultad de Medicina. Universidad Autónoma de Madrid. Spain. December 2009.

TEACHING ACTIVITIES IN THE UNIVERSITY OF MANCHESTER

i) Program Director of Anatomical Sciences. March 2008 to December 2009.
Roles:
a) Coordination of the Program and distribution of unit coordinators as well as tutor assignments
b) Re-organisation of the Anatomical Sciences Program and creation of New Units.
c) Coordination of the 2nd Year Research Skills Modules (RSM).
d) Set Anatomical Sciences essay and problem papers.

e) Vivas and Examination meetings.
f) Distribution and assessment of Units feedback.

ii) Lecturer in Neurosciences. September 2005 to December 2009.
Roles:
a) PBL for second Year Medical Students.
b) OSCE exams (1st & 2nd year) Medical Students.
c) Academic and Personal Tutor
d) Teaching 2nd and 3rd year Anatomical Sciences (Anatomy and Neuroanatomy), 2nd[rd] Year Biomedical Sciences, 3rd year Neurosciences and 1st year Psychology and Cognitive Neurosciences.
e) 1 Lecture to second Year Medical Students (Mechanisms of Memory).
f) 8 Lectures in the 3rd Year Unit, "Imaging Living Systems".
g) 3 Lectures in the 3rd Year Unit, "Current Trends in Anatomical Sciences".
h) 1 Research Lecture in the 3rd Year Unit, "Advance Topics in Neuroscience Research".
i) 3 Lectures in the 2nd Year Unit, "Learning, Memory and Cognition".
j) Yearly Supervision of 3rd Year Final Project Students.
k) Yearly Visits to Placement Students abroad.
l) Direction and Supervision of 3PhD students (2 of them already awarded).
m) Supervision of 1 Post-Doctoral fellow.

TEACHING ACTIVITIES IN THE OPEN UNIVERSITY

i) Consultant in the Course team of the SD-805 Masters (Issues in Brain and Behaviour) that will be re-launch in 2005. January 2004 to present
Roles:
a) Attend Course Team meetings and contribute to the selection of readings in both phases of the masters: drug addiction and ageing.
b) Preparation of part of the support comments included with the selected readings.

ii) Associate Lecturer and Examiner of the SD-805 Masters (Issues in Brain and Behaviour). February 2005 to present.
Roles:
a) Give distant academic support to the students in the different aspects of the course and assess their achievement levels by marking the TMA's.
b) Participate in the exam board and act as an end-of-course assessment second marker.

iii) Consultant in the Course team of the SD-226 Course (Biological Psychology) c. December 2001/January 2002 to present.
Roles:
a) Attend Course Team meetings and wrote a draft chapter on Biological clocks, although this has unfortunately been dropped with the change from 60 to 30 points.
b) Conception and preparation of its investigative strand. This included: a) development and performance of the experiment, b) production of microscope images to be analyzed and further on assessed, c) inclusion of this material in a video and the images within an interactive digital microscope and d) preparation of course related questions.

iv) Demonstrator and Tutor in residential schools (SXR 370/ Brown Adipose Tissue Physiology). July 2002 to July 2006.
Roles:
a) Teach and give academic support at both levels theoretical and practical (Research orientated)
b) Assess students performance by marking the oral presentation at the end of the school as well as the ulterior TMA.

v) Support and co-supervision of 1 Ph.D. student.

MEMBERSHIP OF PROFESSIONAL SOCIETIES

The Anatomical Society of Great Britain and Ireland.

British Neuroscience Association
Society for Neuroscience
IBRO
Red Glial Española
Red Glial Iberoamericana

COURSES & WORKSHOPS

1. "Quantitative Neuroanatomy" 7th November 1998. Los Angeles, CA. (USA).

2. "6ème Colloque de la formation doctorale de neurosciences et neuropharmacologie des universites de Bordeaux I et II". 16th April 1996. Arcachon (France).

3. "Exploration of programmed cell death ". 20th-21st March 1997. Le Vesinet (France).

4. "5ème Colloque de la formation doctorale de neurosciences et neuropharmacologie des universites de Bordeaux I et II". 3rd May 1996. Arcachon (France).

5. "Universal Precautions Working with Human Tissue". Sandoz Pharma Ltd., SAZM. 14th June 1995. Basle (Switzerland).

6. "GLP Training". Sandoz Pharma Ltd., SAZM. 30th May and 8th June 1995. Basle (Switzerland).

7. "Training in necropsy with the Apoloco System". Sandoz Pharma Ltd., SAZM. 18 th May 1995. Basle (Switzerland).

8. "Ultramicrotomy Workshop". University of Bern, M. E. Müller-Institut für Biomechanik. 22nd November 1994. Bern (Switzerland).

9. "Training in necropsy with the Apoloco System". Sandoz Pharma Ltd., SAZM. 7th, 10th, 11th November 1994. Basle (Switzerland).

10. "Workshop on Genetic models in pharmacological-toxicological research". University of Zürich. 18th-19 th August 1994. Zürich (Switzerland).

11. "International Symposium on Brain Aging". Ramón Areces Foundation. st-3rd December 1993. Madrid.

12. "International Workshop on Alzheimer's Disease: Progress for the Next Decade". Ramón Areces Foundation. 22th-23th March 1993. Madrid.

13. "Monographic doctoral courses on Neurobiology":
    * Functional Systems in Neuroanatomy.
    * Synapsis: Morphological Aspects.
    * Neurochemistry.
    * Neural Transplants.
    * Neurobiological bases of the verbal communication.

14. "I Curso Interuniversitario para postgraduados sobre visión: Procesado de la información en el sistema visual humano desde el ojo a la representación de imagenes en la corteza visual". Ramón Areces Foundation. 25th-27th November 1991. Madrid.

LANGUAGES

* Spanish: native language (mother tongue).
* English: reading, speaking and writing.
* French: reading, speaking and writing.
* Catalan: reading, speaking and writing.
* Italian: reading, speaking and writing.
* Portuguese: reading and speaking.
* German: speaking.

- Special training in computer systems.

Signature: José Julio Rodríguez Arellano, Ph.D.

Barakaldo, 1st February 2021.