

CURRICULUM VITAE

Name: José M. Delgado-García

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Birthday: January, 26th, 1945

Birthplace: Sevilla, Spain

Citizenship: Spanish

1. EDUCATION

- Secondary Education: Instituto San Isidoro, Sevilla, Spain, (1955-1963)
- Undergraduate Education: Faculty of Medicine, University of Sevilla, Spain (1963-1969): M.D.
- Graduate Education: Department of Physiology. Faculty of Medicine, University of Sevilla, Sevilla, Spain (1971-1972). Ph.D. in Physiology.
- Residence in Psychiatry: University of Barcelona Medical School. Barcelona, Spain (1969-1970) and University of Sevilla Medical School, Sevilla, Spain (1970-1971).

2. POSITIONS

- Assistant Professor. Department of Physiology. Faculty of Medicine, University of Sevilla, Sevilla, Spain (1970-1972)
- Assistant Professor. Department of Physiology. Faculty of Medicine, University of Madrid. Madrid. Spain (1972-1975).
- Post-Doctoral Worker. Department of Experimental Psychology, Sussex University, Brighton, England (Jan-Apr, 1974).
- Post-Doctoral Worker. Department of Physiology, Oxford University, Oxford, England (Oct-Dic, 1975).
- Post-Doctoral Fellow, Department of Physiology, Iowa University, Iowa, U.S.A. (Jan-Oct, 1976).
- Assistant Research Scientist, Department of Physiology, New York University Medical Center, New York, U.S.A. (Oct,76-Apr, 1978).
- Professor, Department of Physiology, Faculty of Medicine, University of Sevilla (May, 1978-Oct, 1981).
- Full Professor and Director of the Laboratory of Neuroscience, Department of Animal Physiology, Faculty of Biology, Univ. of Sevilla, Sevilla, Spain (Oct, 1981-).
- Chairman of the Department of Animal Physiology and Biology, Univ. of Sevilla, Sevilla, Spain (1989-1998).
- Chairman of the Division of Neurosciences, Univ. Pablo de Olavide, Seville, Spain (1999-).

3. FELLOWSHIPS AND TRAINING

- Fellowship from the ETP in Brain and Behavior Research (1974). University of Sussex, England.
- Fellowship from the ETP in Brain and Behavior Research (1975) Oxford University, England.

- Post-Doctoral fellowship from the Programme of Cultural Cooperation between the U.S.A. and Spain (1976). University of Iowa, USA.
- N.I.H. post-Doctoral fellowship (Dec. 1976- Apr. 1978). New York University Medical Center, USA.
- Visiting Professor at the Department of Physiology and Biophysics of the Faculty of Medicine, New York University, New York, U.S.A. (Jan-Feb., 1980; Apr., 1981; May, 1982; Feb., 1985; Apr., 1987; Apr., 1988; Dec., 1989 and Aug., 1990).
- Visiting Professor at the Department of Neurosensorial Physiology of the C.N.R.S. of France, Faculty of Medicine, Sorbona University, Paris, France (June-August, 1982).

4. AWARDS

- Special Award to Doctoral Thesis submitted in 1972. Faculty of Medicine. University of Sevilla, Spain.
- Award from the Luis Manuel Foundation (1980).
- Award from the Spanish Society of Physiological Sciences (1997)
- Award from the UNIVALI University (Itajai, Brail) (1997)
- Profesor Ad Honoren (Universidad de la República, Montevideo, Uruguay) 2000
- Maimonides Award, Andalusian Government (2009)
- Antonio Gallego Award (SECF, Granada, 2014)
- Medal of the Pablo de Olavide University (2015)
- INeuro Award (Seville, 2018)

5. MAIN MEMBERSHIPS (out of >30)

- Sociedad Española de Ciencias Fisiológicas (President 1995-1997)
- European Neuroscience Association
- New York Academy of Sciences
- Bárány society (elected 1994-)
- International Brain Research Organization
- International Neurotoxicology Association
- Eurotox
- Sociedad Española de Neurociencia (President, 2005-2007)
- Agrupación Española de Bioingeniería
- Society for Neuroscience
- Sociedad Española de Toxicología
- Dana Foundation (elected 2000 -)
- Neural Control of Movement Society

6. SELECTED PUBLICATIONS (from 2008 to 2018)

2008

1. Fontán-Lozano A, López-Lluch G, **Delgado-García JM**, Navas P, Carrión AM. Molecular bases of caloric restriction regulation of neuronal synaptic plasticity. *Mol Neurobiol* 38:167-177, 2008.
2. Fontán-Lozano A, Romero-Granados R, Troncoso J, Múnica A, **Delgado-García JM**, Carrión AM. Histone deacetylase inhibitors improve learning consolidation in young

and in KA-induced-neurodegeneration and SAMP-8-mutant mice. *Mol Cell Neurosci.* 39: 193-201, 2008.

3. Geraldi PA, **Delgado-García JM**, Gruart A. Acute and repeated effects of three organophosphorus pesticides on the acquisition and retention of an instrumental learning task in rats. *Neurotox. Res.* 13: 253-263, 2008.
4. Gruart A, López-Ramos JC, Muñoz MD, **Delgado-García JM**. Aged wild-type and APP, PS1, and APP+PS1 mice present similar deficits in associative learning and synaptic plasticity independent of amyloid load. *Neurobiol Dis.* 30:439-450, 2008.
5. Eleore L, López-Ramos JC, Yi PJ, **Delgado-García JM**. The cognitive enhancer T-588 partially compensates the motor associative learning impairments induced by scopolamine injection in mice. *Behav Neurosci* 121:1203-1214, 2008.
6. Gil-Sanz C, **Delgado-García JM**, Fairén A, Gruart A. Involvement of the mGluR1 Receptor in hippocampal synaptic plasticity and associative learning in behaving mice. *Cereb. Cortex.* 18:1653-1663, 2008.

NOTA: Artículo comentado en *The Scientist* Volume 22, Issue 6, Page 63, por Elie Dolgin: Learning synapses

2009

7. Sánchez-Campusano R, Gruart A, **Delgado-García JM**. Dynamic associations in the cerebellar-motoneuron network during motor learning. *J Neurosci.* 29: 10750-10763, 2009.
8. Fernández-Lamo I, Montero-Pedrazuela A, **Delgado-García JM**, Guadaño-Ferraz A, Gruart A. Effects of thyroid hormone replacement on associative learning and hippocampal synaptic plasticity in adult hypothyroid rats. *Eur J Neurosci.* 30: 679-692, 2009.
9. Musumeci G, Sciarretta C, Rodríguez-Moreno A, Al Banchaabouchi M, Negrete-Díaz V, Costanzi M, Berno V, Egorov AV, von Bohlen Und Halbach O, Cestari V, **Delgado-García JM**, Minichiello L. TrkB modulates fear learning and amygdalar synaptic plasticity by specific docking sites. *J Neurosci.* 29:10131-10143, 2009.
10. Madroñal N, Gruart A, **Delgado-García JM**. Differing presynaptic contributions to LTP and associative learning in behaving mice. *Front Behav Neurosci.* 3:7, 2009.
Nota: Este artículo fue comentado por C.R. Bramham: *LTP ≠ learning: lessons from short-term plasticity*, en *Front Behav Neurosci* (doi:10.3389/neuro.08.003.2010)
11. Romero-Granados R, Fontán-Lozano A, **Delgado-García JM**, Carrión AM. From learning to forgetting: Behavioral, circuitry, and molecular properties define the different functional states of the recognition memory trace. *Hippocampus* 20: 584-595, 2010.
12. Rangel A, Madroñal N, Gruart i Massó A, Gavín R, Llorens F, Sumoy L, Torres JM, **Delgado-García JM**, Del Río JA. Regulation of GABA (A) and glutamate receptor expression, synaptic facilitation and long-term potentiation in the hippocampus of prion mutant mice. *PLoS One* 4(10):e7592, 2009.
13. Fontinha BM, **Delgado-García JM**, Madroñal N, Ribeiro JA, Sebastião AM, Gruart A. Adenosine A(2A) receptor modulation of hippocampal CA3-CA1 synapse plasticity during associative learning in behaving mice. *Neuropsychopharmacology* 34:1865-7184, 2009.
14. **Delgado-García, J.M.** Ratones transgénicos en el estudio de los procesos de aprendizaje y memoria. *Mente y Cerebro*, 34: 74-85, 2009.

15. Fontán-Lozano A, Romero-Granados R, del-Pozo-Martín Y, Suárez-Pereira I, **Delgado-García JM**, Penninger JM, Carrión AM. Lack of DREAM protein enhances learning and memory and slows brain aging. *Curr Biol*. 19:54-60, 2009.
16. Lopes Pereira P, Magnol L, Sahún I, Brault V, Duchon A, Prandini P, Gruart A, Bizot JC, Chadefaux-Vekemans B, Deutsch S, Trovero F, **Delgado-García JM**, Antonarakis SE, Dierssen M, Herault Y. A new mouse model for the trisomy of the Abcg1-u2af1 region reveals the complexity of the combinatorial genetic code of Down syndrome. *Hum Mol Genet*. 18: 4756-4769, 2009.

2010

17. Madroñal N, López-Aracil C, Rangel A, del Río JA, **Delgado-García JM**, Gruart A. Effects of enriched physical and social environments on motor performance, associative learning, and hippocampal neurogenesis in mice. *PLoS One*. 5(6):e11130, 2010.
 18. Madroñal N, Gruart A, Sacktor TC, **Delgado-García JM**. PKMzeta inhibition reverses learning-induced increases in hippocampal synaptic strength and memory during trace eyeblink conditioning. *PLoS One*. 5(4):e10400, 2010.
 19. Porras-García E, Sánchez-Campusano R, Martínez-Vargas D, Domínguez-del-Toro E, Cendelín J, Vozeh F, **Delgado-García JM**. Behavioral characteristics, associative learning capabilities, and dynamic association mapping in an animal model of cerebellar degeneration. *J Neurophysiol*. 104: 346-365, 2010.
- NOTE: Cover of the Journal, September 2010.**
20. Pujadas L, Gruart A, Bosch C, Delgado L, Teixeira CM, Rossi D, de Lecea L, Martínez A, **Delgado-García JM**, Soriano E. Reelin regulates postnatal neurogenesis and enhances spine hypertrophy and long-term potentiation. *J Neurosci*. 30: 4636-4649, 2010.
 21. Clarke JR, Cammarota M, Gruart A, Izquierdo I, **Delgado-García JM**. Plastic modifications induced by object recognition memory processing. *Proc Natl Acad Sci U S A*. 107: 2652-2657, 2010.

2011

22. Fontán-Lozano A, Suárez-Pereira I, **Delgado-García JM**, Carrión AM. The M-current inhibitor XE991 decreases the stimulation threshold for long-term synaptic plasticity in healthy mice and in models of cognitive disease. *Hippocampus*. 21: 22-32, 2011.
23. Sánchez-Campusano R, Gruart A, **Delgado-García JM**. Timing and causality in the generation of learned eyelid responses. *Front Integr Neurosci*. 2011; 5:39. Epub 2011 Aug 30. doi: 10.3389/fnint.2011.00039.
24. Eleore L, López-Ramos JC, Guerra-Narbona R, **Delgado-García JM**. Role of reuniens nucleus projections to the medial prefrontal cortex and to the hippocampal pyramidal CA1 area in associative learning. *PLoS One*. 2011;6(8):e23538. Epub 2011 Aug 15. PubMed PMID: 21858159; PubMed Central PMCID: PMC3156136.
25. García-Mesa Y, López-Ramos JC, Giménez-Llort L, Revilla S, Guerra R, Gruart A, Laferla FM, Cristòfol R, **Delgado-García JM**, Sanfeliu C. Physical exercise protects against Alzheimer's disease in 3xTg-AD mice. *J Alzheimers Dis* 24: 421-454, 2011.
26. Sánchez-Campusano R, Gruart A, **Delgado-García JM**. Dynamic changes in the cerebellar-interpositus/red-nucleus-motoneuron pathway during motor learning. *Cerebellum* 10: 702-710, 2011.
27. Ortiz O, **Delgado-García JM**, Espadas I, Bahí A, Trullas R, Dreyer JL, Gruart A,

- Moratalla R. Associative learning and CA3-CA1 synaptic plasticity are impaired in D1R null, *Drd1a*^{-/-} mice and in hippocampal siRNA silenced *Drd1a* mice. *J Neurosci.* 30: 12288-122300, 2010.
28. Valles-Ortega J, Duran J, García-Rocha M, Bosch C, Sáez I, Pujadas L, Serafín A, Cañas X, Soriano E, **Delgado-García JM**, Gruart A, Guinovart JJ. Neurodegeneration and functional impairments associated with glycogen synthase accumulation in a mouse model of Lafora disease. *EMBO Mol Med.* 3: 667-68, 2011.

2012

29. Gruart A, Benito E, **Delgado-García JM**, Barco A. Enhanced cAMP response element-binding protein activity increases neuronal excitability, hippocampal long-term potentiation, and classical eyeblink conditioning in alert behaving mice. *J Neurosci.* 32:17431-41, 2012.
30. Rubio SE, Vega-Flores G, Martínez A, Bosch C, Pérez-Mediavilla A, del Río J, Gruart A, **Delgado-García JM**, Soriano E, Pascual M. Accelerated aging of the GABAergic septohippocampal pathway and decreased hippocampal rhythms in a mouse model of Alzheimer's disease. *FASEB J.* 26: 4458-4467, 2012.
31. Sánchez-Campusano R, Gruart A, Fernández-Mas R, **Delgado-García JM**. An agonist-antagonist cerebellar nuclear system controlling eyelid kinematics during motor learning. *Front Neuroanat.* 6:8. doi: 10.3389/fnana.2012.00008, 2012.
32. Jurado-Parras MT, Gruart A, **Delgado-García JM**. Observational learning in mice can be prevented by medial prefrontal cortex stimulation and enhanced by nucleus accumbens stimulation. *Learn Mem.* 19: 99-106, 2012. (A) Impact Factor: 5,099, Rank: 29/200.
- NOTE: Cover of the Journal, April, 2012.**
33. Manto M, Bower JM, Conforto AB, **Delgado-García JM**, da Guarda SN, Gerwig M, Habas C, Hagura N, Ivry RB, Mariën P, Molinari M, Naito E, Nowak DA, Oulad Ben Taib N, Pelisson D, Tesche CD, Tilikete C, Timmann D. Consensus paper: roles of the cerebellum in motor control--the diversity of ideas on cerebellar involvement in movement. *Cerebellum.* 11: 457-487, 2012. (A) Impact Factor: 3,207, Rank: 99/244.
34. Madroñal N, Gruart A, Valverde O, Espadas I, Moratalla R, **Delgado-García JM**. Involvement of cannabinoid CB1 receptor in associative learning and in hippocampal CA3-CA1 synaptic plasticity. *Cereb Cortex.* 22: 550-566, 2012.
252. López-Ramos JC, Jurado-Parras MT, Sanfeliu C, Acuña-Castroviejo D, **Delgado-García JM**. Learning capabilities and CA1-prefrontal synaptic plasticity in a mice model of accelerated senescence. *Neurobiol Aging.* 33: 627.e13-26. doi: 10.1016/j.neurobiolaging.2011.04.005, 2012.
35. Pacheco-Calderón R, Carretero-Guillén A, **Delgado-García JM**, Gruart A. Red nucleus neurons actively contribute to the acquisition of classically conditioned eyelid responses in rabbits. *J Neurosci.* 32: 12129-12143, 2012.
36. Márquez-Ruiz J, Leal-Campanario R, Sánchez-Campusano R, Molaei-Ardekani B, Wendling F, Miranda PC, Ruffini G, Gruart A, **Delgado-García JM**. Transcranial direct-current stimulation modulates synaptic mechanisms involved in associative learning in behaving rabbits. *Proc Natl Acad Sci U S A.* 109: 6710-6715, 2012. (A), Impact Factor: 9,643, Rank: 3/50.
37. **Delgado-García, J.M.**, Bases funcionales cerebrales de los procesos cognitivos y su aplicación al estudio de las demencias. *Alzheimer. Real Invst Demenc.* 52: 27-33, 2012.

2013

38. Guerra-Narbona R, **Delgado-García JM**, López-Ramos JC. Altitude acclimatization improves submaximal cognitive performance in mice and involves an imbalance of the cholinergic system. *J. Appl. Physiol.* 114: 1705-1716, 2013.
39. Perciavalle V, Apps R, Bracha V, **Delgado-García JM**, Gibson AR, Leggio M, Carrel AJ, Cerminara N, Coco M, Gruart A, Sánchez-Campusano R. Consensus paper: current views on the role of cerebellar interpositus nucleus in movement control and emotion. *Cerebellum* 12: 738-757, 2013.
40. Leal-Campanario R, **Delgado-García JM**, Gruart A. The rostral medial prefrontal cortex regulates the expression of conditioned eyelid responses in behaving rabbits. *J Neurosci.* 33: 4378-4386, 2013.

NOTE: Cover of the Journal, March 2013.

41. Jurado-Parras MT, Sánchez-Campusano R, Castellanos NP, del-Pozo F, Gruart A, **Delgado-García JM**. Differential contribution of hippocampal circuits to appetitive and consummatory behaviors during operant conditioning of behaving mice. *J Neurosci.* 33: 2293-2304, 2013.
42. Lucas D, **Delgado-García JM**, Escudero B, Albo C, Aza A, Acín-Pérez R, Torres Y, Moreno P, Enríquez JA, Samper E, Blanco L, Fairén A, Bernad A, Gruart A. Increased learning and brain long-term potentiation in aged mice lacking DNA polymerase μ . *PLoS One.* 8(1):e53243, 2013. doi: 10.1371/journal.pone.0053243.
43. Duran J, Sáez I, Gruart A, Guinovart JJ, **Delgado-García JM**. Impairment in long-term memory formation and learning-dependent synaptic plasticity in mice lacking glycogen synthase in the brain. *J Cereb Blood Flow Metab.* 33: 550-556, 2013.
44. Molaee-Ardekani B, Márquez-Ruiz J, Merlet I, Leal-Campanario R, Gruart A, Sánchez-Campusano R, Birot G, Ruffini G, **Delgado-García JM**, Wendling F. Effects of transcranial Direct Current Stimulation (tDCS) on cortical activity: a computational modeling study. *Brain Stimul.* 6: 25-39, 2013.
45. Cutando L, Busquets-García A, Puighermanal E, Gomis-González M, **Delgado-García JM**, Gruart A, Maldonado R, Ozaita A. Microglial activation underlies cerebellar deficits produced by repeated cannabis exposure. *J Clin Invest.* 123: 2816-2831, 2013.

NOTE: Article commented in. J Clin Invest. 123: 3208-3210, 2013.

46. Hasan MT, Hernández-González S, Dogbevia G, Treviño M, Bertocchi I, Gruart A, **Delgado-García JM**. Role of motor cortex NMDA receptors in learning-dependent synaptic plasticity of behaving mice. *Nat Commun.* 4:2258, 2013. doi:10.1038/ncomms3258.
47. **Delgado-García, J.M.** Hacia una neurofisiología de la libertad. Págs. 3-16, 3n: *Neurociencias y Derecho Penal*, E. Demetrio Crespo y M. Maroto Calatayud, eds. Madrid: Edisofer, 2013.
48. Gruart, A., Madroñal, N., Jurado-Parras, M.T. y **Delgado-García, J.M.** Synaptic plasticity studies and their applicability in mouse models of neurodegenerative diseases. *Translat Neurosci.* 4: 134-143, 2013.
49. **Delgado-García, J.M.** El aprendizaje como estado funcional cerebral. Cap. 1. págs. 15-23. Editor: F.J. Rubia Vila, **Neurociencia**. Serie Monografías. Real Academia Nacional de Medicina, Madrid, 2013

2014

50. Duran J, Gruart A, García-Rocha M, **Delgado-García JM**, Guinovart JJ Glycogen accumulation underlies neurodegeneration and autophagy impairment in Lafora Disease. *Hum Mol Genet.* 23: 3147-3156, 2014.
51. Sánchez-Campusano, R., Caro-Martín, C., **Delgado-García, J.M.**, Gruart, A. The timing of learned eyelid responses depends on causality in the cerebellar-red-nucleus-motoneuron network. *Social Behav Sci.*, en prensa, 2014.
52. Vega-Flores G, Rubio SE, Jurado-Parras MT, Gómez-Climent MA, Hampe CS, Manto M, Soriano E, Pascual M, Gruart A, **Delgado-García JM**. The GABAergic Septohippocampal Pathway Is Directly Involved in Internal Processes Related to Operant Reward Learning. *Cereb Cortex* 24: 2093-2107, 2014.
53. Vega-Flores, G., Gruart A, **Delgado-García JM**. Involvement of the GABAergic septo-hippocampal pathway in brain stimulation reward. *PLoS ONE*, 9(11):e113787, 2014. doi: 10.1371/journal.pone.0113787
54. Sahún I, Marechal D, Pereira PL, Nalesso V, Gruart A, **Delgado-García JM**, Antonarakis SE, Dierssen M, Hérault Y. Cognition and hippocampal plasticity in the mouse is altered by monosomy of a genomic region Implicated in Down syndrome. *Genetics* 197: 899-912, 2014.
55. Márquez-Ruiz J, Leal-Campanario R, Wendling F, Ruffini G, Gruart A, **Delgado-García JM**. Transcranial Electrical Stimulation in Animals. Págs. 117-144. In: *The Stimulated Brain*. R. Cohen Kadosh (ed.). Elsevier, 2014

2015

56. Delgado-García, J.M., Sánchez-Campusano, R., Carretero-Guillén, A, Fernández-Lamo I, Gruart A. Multisynaptic state functions characterizing the acquisition of new motor and cognitive skills. In: *Advances in Cognitive Neurodynamics*, H. Liljenström (Ed.). Springer, 2015.
57. Vázquez E, Barranco A, Ramírez M, Gruart A, **Delgado-García JM**, Martínez-Lara E, Blanco S, María Jesús Martín MJ, Castanys E, Buck R, Prieto P, Rueda R. Effects of a human milk oligosaccharide, 2'-fucosyllactose, on hippocampal long-term potentiation and learning capabilities in rodents. *J. Nutr. Biochem.*, 26: 455-465, 2015. doi:10.1016/j.jnutbio.2014.11.016.
58. Manto M, Honnorat J, Hampe CS, Guerra-Narbona R, López-Ramos JC, **Delgado-García JM**, Saitow F, Suzuki H, Yanagawa Y, Mizusawa H, Mitoma H. Disease-specific monoclonal antibodies targeting glutamate decarboxylase impair GABAergic neurotransmission and affect motor learning and behavioral functions. *Front Behav Neurosci.*, 9:78, 2015. doi: 10.3389/fnbeh.2015.00078.
59. Figueiro-Silva J, Gruart A, Clayton KB, Podlesniy P, Abad MA, Gasull X, **Delgado-García JM**, Trullas R. Neuronal pentraxin 1 negatively regulates excitatory synapse density and synaptic plasticity. *J Neurosci.*, 35: 5504-5521, 2015.
60. López-Ramos JC, Guerra-Narbona R, **Delgado-García JM**. Different forms of decision-making involve changes in the synaptic strength of the thalamic, hippocampal, and amygdalar afferents to the medial prefrontal cortex. *Front Behav Neurosci.*, 9:7, 2015. doi: 10.3389/fnbeh.2015.00007.
61. Tyebji S, Saavedra A, Canas PM, Pliassova A, **Delgado-García JM**, Alberch J, Cunha RA, Gruart A, Pérez-Navarro E. Hyperactivation of D1 and A2A receptors contributes to cognitive dysfunction in Huntington's disease. *Neurobiol. Dis.*, 74: 41-57, 2015.

62. Murcia-Belmonte V, Esteban PF, Martínez-Hernández J, Gruart A, Luján R, **Delgado-García JM**, de Castro F. Anosmin-1 over-expression regulates oligodendrocyte precursor cell proliferation, migration and myelin sheath thickness. *Brain Struct Funct.*, 221: 1365-1385, 2016. Doi: 10.1007/s00429-014-0977-4.
63. Almolda B, Carmen de Labra C, Barrera I, Gruart A, **Delgado-García JM**, Hofer MJ, Hidalgo J, Campbell IL, González B, Castellano B. A specific microglial cell phenotype induced by astrocyte-targeted production of IL-10 in the CNS correlates with changes in hippocampal neuronal function. *Brain Behav. Immun.*, 45: 80-97, 2015.
64. Kyrargyri V, Vega-Flores G, Gruart A, **Delgado-García JM**, Probert L. Differential contributions of microglial and neuronal IKK β to synaptic plasticity and associative learning in alert behaving mice. *Glia*, 63: 549-566. doi: 10.1002/glia.22756.
65. Gruart A, Sánchez-Campusano R, Fernández-Guizán A, **Delgado-García JM**. A Differential and Timed Contribution of Identified Hippocampal Synapses to Associative Learning in Mice. *Cereb. Cortex*. 25: 2542-2555, 2015. doi: 10.1093/cercor/bhu054.
66. Carretero-Guillén A, Pacheco-Calderón R, **Delgado-García JM**, Gruart A. Involvement of Hippocampal Inputs and Intrinsic Circuit in the Acquisition of Context and Cues During Classical Conditioning in Behaving Rabbits. *Cereb. Cortex*, 25: 1278-1289, 2015.
67. **Delgado-García JM**. Cajal and the conceptual weakness of neural sciences. *Front. Neuroanat.*, 9:128, 2015. doi: 10.3389/fnana.2015.00128.
68. Rocío Caro-Martín C, Leal-Campanario C, Sánchez-Campusano C, **Delgado-García JM**, Gruart A. A variable oscillator underlies the measurement of time intervals in the rostral medial prefrontal cortex during classical eyeblink conditioning in rabbits. *J. Neurosci.*, 35:14809-14821, 2015.
69. Gruart A, Leal-Campanario R, López-Ramos JC, **Delgado-García JM**. Functional basis of associative learning and their relationships with long-term potentiation evoked in the involved neural circuits: Lessons from studies in behaving mammals. *Neurobiol.Learn. Mem.*, 124: 3-18, 2015.
70. Bello-Morales R, **Delgado-García JM**. The social neuroscience and the theory of integrative levels. *Front. Integr. Neurosci.*, 9:54, 2015. doi: 10.3389/fnint.2015.00054.
71. López-Ramos JC, Duran J, Gruart A, Guinovart JJ, **Delgado-García JM**. Role of brain glycogen in the response to hypoxia and in susceptibility to epilepsy. *Front. Cell. Neurosci.*, 9:431, 2015. doi: 10.3389/fncel.2015.00431.

2016

72. Oliveros E, Ramirez M, Vazquez E, Barranco A, Gruart A, **Delgado-García JM**, Buck R, Rueda R, Martin MJ. Oral supplementation of 2'-fucosyllactose during lactation improves memory and learning in rats. *J. Nutr. Biochem.*, 31:20-27, 2016. doi: 10.1016/j.jnutbio.2015.12.014.
73. Ruiz-Mejias M, Martinez de Lagran M, Mattia M, Castano-Prat P, Perez-Mendez L, Ciria-Suarez L, Gener T, Sancristobal B, García-Ojalvo J, Gruart A, **Delgado-García JM**, Sanchez-Vives MV, Dierssen M. Overexpression of Dyrk1A, a Down Syndrome Candidate, Decreases Excitability and Impairs Gamma Oscillations in the Prefrontal Cortex. *J Neurosci.*, 36: 3648-3659, 2016. doi: 10.1523/JNEUROSCI.2517-15.2016.
74. Manso Y, Comes G, López-Ramos JC, Belfiore M, Molinero A, Giralt M, Carrasco J, Adlard PA, Bush AI, **Delgado-García JM**, Hidalgo J. Overexpression of Metallothionein-1 Modulates the Phenotype of the Tg2576 Mouse Model of Alzheimer's Disease. *J Alzheimers Dis.*, 51:81-95, 2016. doi: 10.3233/JAD-151025.

75. Jurado-Parras MT, **Delgado-García JM**, Sánchez-Campusano R, Gassmann M, Bettler B, Gruart A. Presynaptic GABAB Receptors Regulate Hippocampal Synapses during Associative Learning in Behaving Mice. *PLoS One*, 11: e0148800, 2016. doi: 10.1371/journal.pone.0148800. eCollection 2016.
76. Márquez-Ruiz J, Ammann C, Leal-Campanario R, Ruffini G, Gruart A, **Delgado-García JM**. Synthetic tactile perception induced by transcranial alternating-current stimulation can substitute for natural sensory stimulus in behaving rabbits. *Scientific Reports*. 6:19753, 2016. doi: 10.1038/srep19753.
77. Madroñal N, **Delgado-García JM**, Fernández-Guizán A, Chatterjee J, Köhn M, Mattucci C, Jain A, Tsetsenis T, Illarionova A, Grinevich V, Gross CT, Gruart A. Rapid erasure of hippocampal memory following inhibition of dentate gyrus granule cells. *Nature Commun.*, 7:10923, 2016. doi: 10.1038/ncomms10923.
78. Ammann C, Márquez-Ruiz J, Gómez-Climent MÁ, **Delgado-García JM**, Gruart A. The Motor Cortex Is Involved in the Generation of Classically Conditioned Eyelid Responses in Behaving Rabbits. *J Neurosci*. 36: 6988-7001, 2016. doi: 10.1523/JNEUROSCI.4190-15.2016.
79. Schneider S, Gruart A, Grade S, Zhang Y, Kröger S, Kirchhoff F, Eichele G, **Delgado-García JM**, Dimou L. Decrease in newly generated oligodendrocytes leads to motor dysfunctions and changed myelin structures that can be rescued by transplanted cells. *Glia*, 64: 2201-2218, 2016. doi: 10.1002/glia.23055.
80. Gruart, A., **Delgado-García, J.M.**, Lintas, A. Effect of parvalbumin deficiency on distributed activity and interactions in neural circuits activated by instrumental learning. Págs. 111-117, en “Advances in Cognitive Neurodynamics (V)”. R. Wang and X. Pan, eds. Springer, Singapore, 2016.
81. **Delgado-García, J.M.**, Sánchez-Campusano, R., Fernández-Lamo, I., Gruart, A. Dynamic patterns of cortical activation during different types of learning tasks and unpredictable situations. Págs. 119-125. en “Advances in Cognitive Neurodynamics (V)”. R. Wang and X. Pan, eds. Springer, Singapore, 2016.
82. Gruart, A. and **Delgado-García, J.M.** Electrophysiological recordings in behaving animals. Págs. 369-396, en “Receptor and ion channel detection in the brain: Methods and protocols”, E. Lujan and F. Ciruela, eds. Springer Protocols, New York, 2016.
83. Fernández-Lamo, I, Sánchez-Campusano, R., Gruart, A. **Delgado-García, J.M.**, Functional states of rat cortical circuits during the unpredictable availability of a reward-related cue. *Scientific Reports*, 6:37650, 2016. doi: 10.1038/srep37650.
84. Vázquez, E., Barranco, A., Ramírez, M., Gruart, A., **Delgado-García, J.M.**, Jimenez, M.L., Buck, R., Rueda, R. 2’Fucosyllactose enhances operant conditioning and long-term potentiation via gut-brain communication through the vagus nerve in rodents. *PLoS One*, 11:e0166070, 2016. doi: 10.1371/journal.pone.0166070. eCollection 2016.

2017

85. Fernandez SP, Muzerelle A, Scotto-Lomassese S, Barik J, Gruart A, **Delgado-García JM**, Gaspar P. Constitutive and Acquired Serotonin Deficiency Alters Memory and Hippocampal Synaptic Plasticity. *Neuropsychopharmacology*, 42:512-523, 2017. doi: 10.1038/npp.2016.134.
86. Sergaki MC, López-Ramos JC, Stagkourakis S, Gruart A, Broberger C, **Delgado-García JM**, Ibáñez CF. Compromised Survival of Cerebellar Molecular Layer Interneurons Lacking GDNF Receptors GFR α 1 or RET Impairs Normal Cerebellar Motor Learning.

- Cell Reports*, 19:1977-1986, 2017. doi: 10.1016/j.celrep.2017.05.030.
87. Andreu-Sánchez C, Martín-Pascual MÁ, Gruart A, **Delgado-García JM**. Looking at reality versus watching screens: Media professionalization effects on the spontaneous eyeblink rate. *PLoS One*, 12:e0176030, 2017. doi: 10.1371/journal.pone.0176030. eCollection 2017.
 88. Andreu-Sánchez C, Martín-Pascual MÁ, Gruart A, Delgado-García JM. Eyeblink rate watching classical Hollywood and post-classical MTV editing styles, in media and non-media professionals. *Sci. Rep.*, 7:43267. doi: 10.1038/srep43267.
 89. Illa M, Eixarch E, Muñoz-Moreno E, Batalle D, Leal-Campanario R, Gruart A, **Delgado-García JM**, Figueras F, Gratacós E. Neurodevelopmental Effects of Undernutrition and Placental Underperfusion in Fetal Growth Restriction Rabbit Models. *Fetal Diagn Ther.*, 42:189-197, 2017. doi: 10.1159/000454859.
 90. Hernández-González S, Andreu-Sánchez C, Martín-Pascual MÁ, Gruart A, **Delgado-García JM**. A Cognition-Related Neural Oscillation Pattern, Generated in the Prelimbic Cortex, Can Control Operant Learning in Rats. *J. Neurosci.* 37:5923-5935, 2017. doi: 10.1523/JNEUROSCI.3651-16.2017.
 91. Fernández-Lamo I, **Delgado-García JM**, Gruart A. When and Where Learning is Taking Place: Multisynaptic Changes in Strength During Different Behaviors Related to the Acquisition of an Operant Conditioning Task by Behaving Rats. *Cereb. Cortex*, 14:1-13, 2017. doi: 10.1093/cercor/bhx011
 92. Giralt A, Gómez-Climent MA, Alcalá R, Bretin S, Bertrand D, **Delgado-García JM**, Pérez-Navarro E, Alberch J, Gruart A. The AMPA receptor positive allosteric modulator S 47445 rescues in vivo CA3-CA1 long-term potentiation and structural synaptic changes in old mice. *Neuropharmacology*, 123:395-409, 2017.
 93. Gruart A, Madroñal N, Jurado-Parras MT, **Delgado-García JM**. Interactions of experience-dependent plasticity and LTP in the hippocampus during associative learning. *Handbook of Neurobehavioral Genetics and Phenotyping*. V. Tucci (ed.), Wiley-Blackwell, págs. 91-114. 2017.
 94. Berger SM, Fernández-Lamo I, Schönig K, Fernández Moya SM, Ehses J, Schieweck R, Clementi S, Enkel T, Grothe S, von Bohlen Und Halbach O, Segura I, **Delgado-García JM**, Gruart A, Kiebler MA, Bartsch D. Forebrain-specific, conditional silencing of *Staufen2* alters synaptic plasticity, learning, and memory in rats. *Genome Biol.* 18:222, 2017. doi: 10.1186/s13059-017-1350-8.
 95. Lissek T, Adams M, Adelman J, Ahissar E, Akaaboune M, Akil H, al'Absi M, Arain F, Arango-Lasprilla JC, Atasoy D, Avila J, Badawi A, Bading H, Baig AM, Baleriola J, Belmonte C, Bertocchi I, Betz H, Blakemore C, Blanke O, Boehm-Sturm P, Bonhoeffer T, Bonifazi P, Brose N, Campolongo P, Celikel T, Chang CC, Chang TY, Citri A, Cline HT, Cortes JM, Cullen K, Dean K, **Delgado-García JM**, Desroches M, Disterhoft JF, Dowling JE, Draguhn A, El-Khamisy SF, El Manira A, Enam SA, Encinas JM, Erramuzpe A, Esteban JA, Fariñas I, Fischer E, Fukunaga I, Gabilondo I, Ganten D, Gidon A, Gomez-Esteban JC, Greengard P, Grinevich V, Gruart A, Guillemain R, Hariri AR, Hassan B, Häusser M, Hayashi Y, Hussain NK, Jabbar AA, Jaber M, Jahn R, Janahi EM, Kabbaj M, Kettenmann H, Kindt M, Knafo S, Köhr G, Komai S, Krugers H, Kuhn B, Ghazal NL, Larkum ME, London M, Lutz B, Matute C, Martinez-Millan L, Maroun M, McGaugh J, Moustafa AA, Nasim A, Nave KA, Neher E, Nikolich K, Outeiro T, Palmer LM, Penagarikano O, Perez-Otano I, Pfaff DW, Poucet B, Rahman AU, Ramos-Cabrer P, Rashidy-Pour A, Roberts RJ, Rodrigues S, Sanes JR, Schaefer AT, Segal M, Segev I, Shafiq S, Siddiqui NA, Soreq H, Soriano-García E, Spanagel R, Sprengel R, Stuart G,

- Südhof TC, Tønnesen J, Treviño M, Uthman BM, Venter JC, Verkhatsky A, Weiss C, Wiesel TN, Yaksi E, Yizhar O, Young LJ, Young P, Zawia NH, Zugaza JL, Hasan MT. Building Bridges through Science. *Neuron* 96:730-735, 2017. doi: 10.1016/j.neuron.2017.09.028.
96. Sánchez-Rodríguez I, Temprano-Carazo S, Nájera A, Djebari S, Yajeya J, Gruart A, **Delgado-García JM**, Jiménez-Díaz L, Navarro-López JD. Activation of G-protein-gated inwardly rectifying potassium (Kir3/GirK) channels rescues hippocampal functions in a mouse model of early amyloid- β pathology. *Sci Rep*. 7(1):14658, 2017. doi: 10.1038/s41598-017-15306-8.
97. **Delgado-García JM**, Gruart A. Learning as a Functional State of the Brain: Studies in Wild-Type and Transgenic Animals. *Adv Exp Med Biol*. 1015:75-93, 2017. doi: 10.1007/978-3-319-62817-2_5.

2018


99. Lovera-Ulecía M, Moreno-Lama L, Gómez-Climent MA, **Delgado-García JM**, Gruart A. Behavioral and cognitive impairments induced by low doses of MK-801 and ketamine. Págs. 43-53. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
100. Andreu-Sánchez C, Martín-Pascual MA, Gruart A, **Delgado-García JM**. RatButton: touchscreen stimuli multipurpose presentation software. Págs. 219-225. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
101. López-Ramos, **Delgado-García JM**. Application of video-oculography for the analysis of the vestibulo-ocular reflex in acute hypoxic mice. Págs. 211-217. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
102. Martín-Pascual MA, Andreu-Sánchez C, **Delgado-García JM**, Gruart A. Differences in perceiving narratives through screens or reality. Págs. 365-369. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
103. Caro-Martín CR, Gruart A, **Delgado-García JM**, Villa AEP. ERFo, an algorithm for extracting a range of optimal frequencies of an electrophysiological recording. Págs. 227-233. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
104. Caro-Martín CR, **Delgado-García JM**, Gruart A, Sánchez-Campusano R. VISSOR: An Algorithm for the Detection, Identification, and Classification of the Action Potentials Distributed Across Electrophysiological Recordings. Págs. 235-243. In: **Delgado-García, J.M.**, Pan, X., Sánchez-Campusano, R. y Wang R. “*Advances in Cognitive Neurodynamics* (VI). Proceedings of the Sixth International conference on Cognitive Neurodynamics-2017”, Springer, Singapore, 2018.
105. Sanz-Rodríguez M, Gruart A, Escudero-Ramírez J, de Castro F, **Delgado-García JM**, Wandosell F, Cubelos B. R-Ras1 and R-Ras2 Are Essential for Oligodendrocyte

Differentiation and Survival for Correct Myelination in the Central Nervous System. *J Neurosci*. 2018 May 30;38(22):5096-5110. doi: 10.1523/JNEUROSCI.3364-17.2018.

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106. Martín-Pascual MÁ, Andreu-Sánchez C, **Delgado-García JM**, Gruart A. Using Electroencephalography Measurements and High-quality Video Recording for Analyzing Visual Perception of Media Content. *J Vis Exp*. 2018 May 26;(135). doi: 10.3791/57321.
107. López-Ramos JC, Houdek Z, Cendelín J, Vožeh F, **Delgado-García JM**. Timing correlations between cerebellar interpositus neuronal firing and classically conditioned eyelid responses in wild-type and Lurcher mice. *Sci Rep*. 2018 Jul 16;8(1):10697. doi: 10.1038/s41598-018-29000-w.
108. Andreu-Sánchez C, Martín-Pascual MA, Gruart A, **Delgado-García JM**. Commentary: Using electroencephalography measurements and high-quality video recording for analyzing visual perception of media content. *J Mental Health Clin Psychol*. 2(4):53-54, 2018.

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A handwritten signature in blue ink that reads "Joni de Delgado". The signature is written in a cursive style and is underlined.

Seville, January, 2019