

PERSONAL INFORMATION

Gloria Maria Palomo Carrasco

WORK EXPERIENCE

February 2018–Present

Non-Clinical Assessor

Agencia Española de Medicamentos y Productos Sanitarios (Spain)

Pharmaco-toxicological evaluation of medicines for human use.

February 2012–August 2017

Postdoc Associate

Weill Cornell Medicine, Feil Family Brain and Mind Research Institute (United States)

Research on the pathogenesis of ALS in animal and cellular models, with special focus on mitochondrial quality control mechanisms.

November 2009–February 2012

Postdoctoral Fellow

Centro de Biología Molecular Severo Ochoa (Centro de Investigación Biomédica en Red de Enfermedades Raras and Fundación Severo Ochoa) (Spain)

Characterization of the molecular mechanisms responsible for the neurodegeneration in Friedreich's ataxia.

March 2007–June 2007

Visiting Predoctoral Fellow

Institut de Génétique et de Biologie Moléculaire et Cellulaire (France)

Isolation and characterization of neural precursor cells from Friedreich's ataxia mouse models and their differentiation to mature neuronal cells.

September 2003–October 2009

Predocctoral Fellow

Universidad Autónoma de Madrid (Molecular Biology Department and Centro de Biología Molecular Severo Ochoa) (Spain)

Research focused on the generation of new neuronal cell models of Friedreich's ataxia and the characterization of the neurodegeneration related to frataxin deficiency.

September 2002–June 2003

Undergraduate Student

Universidad Autónoma de Madrid (Molecular Biology Department) (Spain)

Research on the effects of Glycogen Synthase Kinase-3 (GSK-3) inhibitors in the survival of neuronal cells.

EDUCATION AND TRAINING

September 2005–October 2009

PhD in Molecular Biology (Neuroscience)

Universidad Autónoma de Madrid (Spain)

European PhD Mention.

Thesis entitled: Generation of new neuronal cell models of Friedreich's ataxia: characterization of the neurodegeneration related to frataxin deficiency.

September 2003–September 2005

Postgraduate Studies (Diploma de Estudios Avanzados, DEA) in Molecular Biology and Neuroscience

Universidad Autónoma de Madrid (Spain)

September 2001–June 2003

BsC in Biochemistry

Universidad Autónoma de Madrid (Spain)

September 1998–June 2001

Certificate in Biological Sciences

Universidad Autónoma de Madrid (Spain)

ADDITIONAL INFORMATION

Expertise

Neuroscience, mitochondria, molecular mechanisms of neuronal degeneration, isolation and characterization of therapeutical targets for neuroprotection or neuronal repair, gene therapy in the nervous system, mitophagy and mitochondria quality control, autophagy.

Publications

Deng Z., Lim J., Wang Q., Purtell K., Wu S., **Palomo G.M.**, Tan H., Manfredi G., Zhao Y., Peng J., Hu B., Chen S., Yue Z.

ALS-FTLD-linked mutations of SQSTM1/p62 disrupt selective autophagy and NFE2L2/NRF2 anti-oxidative stress pathway.

Autophagy. 2019 Jul 30:1-15.

Palomo G.M., Granatiero V., Kawamata H., Konrad C., Kim M., Arreguin A.J., Zhao D., Milner T.A., Manfredi G.

Parkin is a disease modifier in the mutant SOD1 mouse model of ALS.

EMBO Mol Med. 2018 Oct;10(10). pii: e8888.

Kawamata H., Peixoto P., Konrad C., **Palomo G.**, Bredvik K., Gerges M., Valsecchi F., Petrucelli L., Ravits J.M., Starkov A., Manfredi G.

Mutant TDP-43 does not impair mitochondrial bioenergetics in vitro and in vivo.

Mol Neurodegener. 2017 May 8;12(1):37.

Riar A.K., Burstein S.R., **Palomo G.M.**, Arreguin A., Manfredi G., Germain D.

Sex specific activation of the ER α axis of the mitochondrial UPR (UPRmt) in the G93A SOD1 mouse model of familial ALS.

Hum Mol Genet. 2017 Apr 1;26(7):1318-1327.

Palomo G.M. and Manfredi G.

Exploring new pathways of neurodegeneration in ALS: the role of mitochondria quality control.

Brain Res. 2015, May 14;1607:36-46.

Palomo G.M., Cerrato T., Gargini R., Díaz-Nido J.

Silencing of frataxin gene expression triggers p53-dependent apoptosis in human neuron-like cells.

Hum Mol Genet. 2011, Jul 15;20(14):2807-22.

Giménez-Cassina A., Lim F., Cerrato T., **Palomo G.M.**, Díaz-Nido J.

Mitochondrial Hexokinase II promotes neuronal survival and acts downstream of Glycogen Synthase Kinase-3.

J Biol Chem. 2009 Jan 30;284(5):3001-11.

Lim F., **Palomo G.M.**, Mauritz C., Giménez-Cassina A., Illana B., Wandosell F., Díaz-Nido J.

Functional recovery in a Friedreich's Ataxia mouse model by frataxin gene transfer using an HSV-1 amplicon vector.

Mol. Ther. 2007 Jun;15(6):1072-8.

Projects

Memberships

Short-term fellowship from Universidad Autónoma de Madrid for a research collaboration at The Institut de Génétique et de Biologie Moléculaire et Cellulaire (Strasbourg, France).

Predoctoral fellowship from Ministerio de Educación y Ciencia (Formación de Profesorado Universitario, FPU) to conduct the PhD project.

Fellowship for undergraduate students from Ministerio de Educación y Ciencia to conduct a research project in a laboratory during the last year of university studies.

Poster presentation selected as Hot Topic in the Neuroscience 2015 meeting (Society for Neuroscience, Chicago, USA) . Poster # 68.11/O13; presentation title: The role of mitophagy and parkin in SOD1-ALS.

Other Relevant Information

Collaboration as Assistant Teacher in the Department of Molecular Biology, Universidad Autónoma de Madrid (2003-2011).

Subjects: Biochemistry, Enzymology, Microbiology and Genetic Engineering.

Reviewer for 2 international journals, Nucleic Acid Research and Journal of Neuroscience (2012-2017).