

# MARIA DEL MAR PACHECO HERRERO PhD

## PERSONAL INFORMATION

Surname: Pacheco Herrero  
First Name: Maria del Mar  
Birth Date & Country: 09/24/1986, Spain  
Nationality: Spanish  
Current work address: Autopista Duarte km 1 ½, Zip Code 822, Santiago de los Caballeros, Dominican Republic  
E-mail: [md.pacheco@ce.pucmm.edu.do](mailto:md.pacheco@ce.pucmm.edu.do)  
Alternative e-mail: [mm.pachecoherr@gmail.com](mailto:mm.pachecoherr@gmail.com)  
Tel: +1 809-354-7064

## CURRENT PROFESSIONAL SITUATION

2014-present. Full time Professor. Undergraduate: Medicine. Graduate: Master in Biomedical Research. Pontificia Universidad Católica Madre y Maestra. Dominican Republic.

2017-2020 Researcher. Project: “Comparative study of the presence of neuropathological alterations in patients with Alzheimer's disease and in a murine transgenic model. Relationship with cognitive and emotional deficits”. FONDOCyT. Ministerio de Educación Superior Ciencia y Tecnología. Dominican Republic. Co-researchers: Francisco Olucha, Francisco Ros, Ernestina Castro.

2016-2019 Researcher. Project “Elimination of cortical amyloid deposits through magnetic hiperthermal therapy using functionalized grafene in a model of transgenic mouse of Alzheimer”. FONDOCyT. Ministerio de Educación Superior Ciencia y Tecnología. Dominican Republic. Co-researchers: Zaira Gonzalez, Ernestina Castro.

2016-2019 Researcher. Project “Toxicity evaluation of carbon nanotubes coated with diamond nanocrystals and silicon carbide in different organisms” FONDOCyT. Ministerio de Educación Superior Ciencia y Tecnología. Dominican Republic. Co-researchers: Zaira Gonzalez (IP), Fabrice Piazza.

## EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR (s)	FIELD OF STUDY
Pontificia Universidad Católica Madre y Maestra. Dominican Republic	Professor. Researcher- Postdoctoral training	2014-present	Neuroscience. Nanomaterials
Institute San Alvaro. Córdoba. Spain	Technician in Radiotherapy	2012-2014	Radiotherapy. Medicine.
University of Cadiz. Spain	Ph.D. in Neuroscience	2009-2012	Neuroscience
University of Cadiz. Spain	Master in Biomedicine	2009-2010	Biomedicine
Centro Superior de	Predoctoral training	2008 (2 m)	Genetic. Molecular

Investigaciones Científicas. Spain			Biology
University of Lincoln. United Kingdom	Predoctoral training	2009 (20 d)	Molecular Biology. Chemistry
University of Córdoba. Spain	Predoctoral training	2006-2009	Genetic. Molecular Biology
University of Cordoba. Spain	Biochemistry	2004-2009	Biochemistry. Biology

## PROFESSIONAL EXPERIENCE

YEAR	POSITION TITLE	INSTITUTION
2017-present	Researcher-Postdoctoral training	Pontificia Universidad Catolica Madre y Maestra, Dominican Republic
2014-present	Full time professor	Pontificia Universidad Catolica Madre y Maestra, Dominican Republic
2013-2014	Radiotherapy technician	Hospital Provincial of Cordoba. Spain.
2009-2012	Predoctoral researcher	University of Cadiz. Spain
2006-2009	Undergraduate	University of Cordoba. Spain

## PUBLICATIONS

**-Pacheco-Herrero M.**, Ramos-Rodriguez J., Thyssen D., Murillo-Carretero M., Berrocoso E., Spires-Jones TL., Backsai BJ., Garcia-Alloza M. Rapid beta-amyloid deposition and cognitive impairment after cholinergic denervation in APP/PS1 mice. *J Neuropathol Exp Neurol.* 2013 Apr; 72(4):272-85.

-Jimenez-Palomares M., Ramos-Rodriguez J., Lopez-Acosta J., **Pacheco-Herrero M.**, Lechuga-Sancho A., Perdomo G., Garcia-Alloza M., Cozar-Castellano I. Increased A $\beta$  production prompts the onset of glucose intolerance and insulin resistance. *American Journal of Physiology-Endocrinology and Metabolism.* 2012 Jun 1; 302(11):E1373-80.

**-Pacheco-Herrero M.** Denervación colinérgica y depósito de beta-amiloide en un modelo transgénico de Alzheimer. Universidad de Córdoba. 2012.

**-Pacheco-Herrero M.**, Jimenez, U. Manual de Laboratorio de Bioquímica I. Pontificia Universidad Catolica y Maestra. 2017.

## AWARDS

2017. Professoral Excellence Prize. Pontificia Universidad Catolica Madre y Maestra. Dominican Republic.

2017. Teacher innovation award. Pontificia Universidad Catolica Madre y Maestra. Dominican Republic.

2009. International Movility Fellowship. Virginia Commonwealth University. Virginia. USA.

2009. Undergraduate Fellowship. University of Lincoln. United Kingdom.

## SUPERVISION

### Master students

Zahira Quiñones Távarez- Project: “Evaluation of the toxicity of urchin-type gold nanoparticle in comparison with spherical gold nanoparticles in wild-type and a transgenic *C.elegans* Alzheimer’s disease model”. Evaluation: Sobresaliente.

Lilibette Alvino-Project: “Wild-type and transgenic Alzheimer’s disease *C.elegans* as a model organism for the evaluation of the toxicity of barium hexaferrite”. Evaluation: Sobresaliente.

Rosa Ortiz Hernández-Project: “Toxicity of strontium ferrite in the organism wild-type and transgenic *C.elegans*”. Evaluation: Notable.

## CONFERENCE PROCEEDINGS (most relevant)

-Castro-Salazar E., Ozoria, C., Vasquez J., **Pacheco-Herrero M.**, Use of the peptide CLPFFD for the design of a magnetic nanohybrid against senile plaques in Alzheimer disease. Mediterranean Neuroscience Congress (MNS). (Malta).

-Castro-Salazar E., **Pacheco-Herrero M.**, García Díaz C., García Avilés A., Sánchez Catalán MJ; Sánchez Sarasúa M., Albert Gascó H., Sánchez AM., Ros Bernal F; Olucha Bordonau FE. “Effect of nucleus incertus inactivation in social recognition in adult male rats”. XIII Congreso Internacional del MESCyT (Santo Domingo, República Dominicana).

-Gonzalez Z; **Pacheco-Herrero M.** “Aplicaciones biológicas de la microscopía de fuerza atómica en investigación”. XII Congreso Internacional del MESCyT. XII Congreso Internacional del MESCyT (Santo Domingo, República Dominicana).

-**Pacheco-Herrero M.**, Gonzalez Z. “Eliminación de depósitos amiloides mediante el uso de nanomateriales en un modelo transgénico de Alzheimer: una revisión”. XII Congreso Internacional del MESCyT (Santo Domingo, República Dominicana).

-**Pacheco-Herrero M.**, Thyssen D., Ramos-Rodríguez J., Berrocoso E., Bacsai BJ., Garcia-Alloza M. “Denervación colinérgica y depósito de beta amiloide en un modelo transgénico de Alzheimer”. XI Congreso Internacional del MESCyT (Santo Domingo, República Dominicana).

-**Pacheco-Herrero M.**, Thyssen D., Ramos-Rodríguez J., Berrocoso E., Bacsai BJ., Garcia-Alloza M. “Rapid beta-amyloid deposition and behavioural impairment after cholinergic denervation in APP<sup>swe</sup>/PS1<sup>dE9</sup>” Advancing the Understanding of the Brain and Nervous System (Washington DC, USA).

-Ramos-Rodríguez J., Jimenez-Palomares M., **Pacheco-Herrero M.**, Berrocoso E., Perdomo G., Lechuga A., Cozar-Castellano I., Garcia-Alloza M. “Central neurodegeneration and vascular damage in type 2 Diabetes Mellitus mice” Advancing the Understanding of the Brain and Nervous System (Washington DC, USA).

-**Pacheco-Herrero M.**, Thyssen D., Ramos-Rodríguez J., Berrocoso E., Bacsai BJ., Garcia-Alloza M. “Cholinergic denervation has a rapid effect on amyloid deposition in vivo in APP<sup>swe</sup>/PS1<sup>dE9</sup>” XXIV Congreso Nacional SENC (Salamanca, España).

-**Pacheco-Herrero M.**, Thyssen D., Ramos-Rodríguez J., Berrocoso E., Bacsai BJ., Garcia-Alloza M. “Cholinergic denervation worsens behavioural impairment in APP<sup>swe</sup>/PS1<sup>dE9</sup> mice” 43<sup>rd</sup> Meeting of the European Brain and Behaviour Society (Sevilla, España).

-**Pacheco-Herrero M.**, Thyssen D., Bacsai BJ. & Garcia-Alloza M. “Rapid beta-amyloid deposition after cholinergic denervation in APP<sup>swe</sup>/PS1<sup>dE9</sup> mice”. Models of dementia; the good, the bad and the future (Cambridge, UK).

-**Pacheco-Herrero M.**, Thyssen D., Pérez MO., Rey-Brea R., Berrocoso E., Bacsai BJ. & Garcia-Alloza M. “Denervación colinérgica y depósito de beta-amiloide en un modelo transgénico de Alzheimer”. Salud Investiga (Cádiz, España).

**-Pacheco-Herrero M.**, Thyssen D., Bacskai BJ. & Garcia-Alloza M. “Cholinergic denervation effect on amyloid-beta deposition in Alzheimer's Disease mice”. Forum of European Neuroscience (Amsterdam, Netherlands).