

## PERSONAL INFORMATION

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Sex Male | Birth date 3/11/1993 | Born in Lepe (Huelva) | Nationality Spanish

## Working expertise

Since November 2016 to  
September 2018

## Associated researcher to a Master's Final Thesis

Tutor: Carlos Vicario Abejón (Instituto Cajal, Spanish National Research Council (CSIC), Madrid)

- 'Characterization of a human iPSCs line with mutation in PS1 as a cellular model to study familiar Alzheimer Disease'. Several techniques were used: freezing and defrosting of mouse embryonic fibroblasts (MEFs) and human iPSCs; human fibroblast reprogramming into iPSCs and their maintenance both on MEFs feeders and xeno-free medium; obtention of MEFs' conditioned medium; immunohistochemistry against markers of pluripotency and multipotency; derivation and maintenance of iPSCs-derived Neural Stem Cells (NSCs), generation of embryoid bodies and their induction into the three germ layers (ectoderm, mesoderm and endoderm; RT-qPCR; quality control of ADN/ARN (quantification and integrity); quality control of iPSCs culture (micoplasma, microsatellite, confirmation of PS1 mutation and genotype by PCR and DNA sequencing, alkaline phosphatase assay); bioinformatic tools (PrimerSelect, MegAlign, NCBI, GraphPad Prism, Excel, etc.)

Business Cellular and Molecular Biology

Since January 2016 to June  
2016

## Associated Researcher to a Bachelor's Final Project

Tutors: María del Mar Malagón Poyato and Rocío Guzmán Ruiz (IMIBIC and University of Córdoba).

- 'Characterization of biomarkers associated to insulin resistance and obesity: microRNAs and adipose tissue'. Several techniques were used: isolation of fibroblasts from adipose biopsy, differentiation of fibroblasts into 3T3-L1 adipocytes (adipogenesis assay), cell culture, cellular transfection by means of lipofectamine and electroporation, *in silico* analysis (microRNA and MirTarBase), lipolysis and lipogenesis assay, histochemistry assay, RT-qPCR analysis of microRNAs.

Business Cellular and Molecular Biology

Since July 2015 to August  
2015

## Summer internship

Simon McDade (Center for Cancer Research and Cell Biology, Queen's University, Belfast, UK)

- 'Tumour suppressor genes in cancer: Role of c-met as a p63 target in head and neck carcinomas'. Several techniques were used: cell culture of oropharyngeal cell lines (FaDu, Detroit 562, VU-04OT), gene silencing by means of siRNAs knock-down, cell harvesting and protein extraction, protein quantification by spectrophotometry, chromatin immunoprecipitation; gel electrophoresis in a 4-20% acrylamide gradient; Western blot; chemoluminescence. Bioinformatic tools (GraphPad, ImageJ, Excel, NCBI)

Business Cellular and Molecular Biology

July-August 2010; July-August  
2012; July-September 2017

## Plastic industry worker

2012, July-September 2017

Manuel Muriel Pérez (Lepeplas S.L., Lepe (Huelva, Spain)).

- Responsible for the cutting and extruder machines, producing polietilene film for agriculture as well as commercial plastic bags.

**Business** Plastic industry

December 2019-August 2020

Salesclerk in a jewelry (Lepe) and ocasional teacher in Aran School (Cartaya).

August 2020-present

**Lab technician II**

Jorge Alegre Cebollada (Spanish National Center of Cardiovascular Research, CNIC). Contracted with funds from a grant from 'Myokardya' pharmaceutical company.

**FORMACIÓN ACADÉMICA**

Degree in Biochemistry (2012-2016)

**7,83/10**

University of Córdoba (Spain) and University of Lincoln (United Kingdom) as an Erasmus student in Life Sciences program during the third year of the Degree.

- Several methods and techniques were learned and used: RT-qPCR; solid/liquid/gas chromatography; spectroscopy (UV-Visible, infrared, fluorometry; fluorescence; mass spectrometry by MALDI-TOF/quadrupole); bidimensional electrophoresis of proteins/nucleic acids, cell culture; bacterial, virus, animal and plant tissue processing and fixation for optic, confocal and electronic microscopy; histochemistry; immunocytochemistry and immunohistochemistry; ELISA; bioinformatic tools (Excel, SPSS, Linux, Octave/MATLAB, PDB, NCBI, EMBL-EBI, Blast, FastQC, Mauve assembler).

Master in Neuroscience (2016-2018)

**7,88/10**

University Autónoma of Madrid (UAM), Spain

- Several methods and techniques were learned and used: electrophysiology, characterization of neurotransmitters; handling, sedation, blood obtention and animal sacrifice (mice and rats); animal perfusion and tissue fixation; histochemistry and immunohistochemistry; western blot, sample processing with vibratome and ultramicrotome; transmission electronic microscopy; grade C license to work with animal models (rodents and lagomorphs).

**PERSONAL SKILLS**

Mother language

Spanish

Other languages

	COMPREHENSION		ORAL COMMUNICATION		WRITING
	Listening	Reading	Oral interaction	Oral production	
English	C1 (Advanced) Cambridge ESO level.				
Actually, I am preparing for the C2 (Proficiency) Cambridge Level					
Portuguese/French	Basic user				
No certificate. Learned from high school.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communicative skills

- Good communicative skills acquired from multiple seminars and presentations at the University, the Cajal's Institute and Dr. Vicario's lab (most of them in English)

Organizational skills

- Responsible for the project on the characterization of a human iPSCs line and generation of iPSCs-derived Neural Stem Cells at Dr. Vicario's lab; and responsible of the product quality and machines while working at Lepeplas S.L.



## Digital skills

## SELF EVALUATION

Data processing	Communication	Content creation	Security	Problem solving
Independent user				

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

- Good skills with PowerPoint/Keynote presentations gained through multiple seminars during the Degree and as lab researcher.
- Good skills with ImageJ, Fiji, AdobeReader and other editors during my stay in different labs (CCRCB, IMIBIC and Cajal's Institute).

## Other skills

- Autodidact for any activity thanks to tutorials, seminars and forums. Car driving license (B)

## ADDITIONAL INFORMATION

## Publications

Eva Díaz-Guerra, Manuel A. Oria-Muriel, M.A., Elena Moreno-Jiménez, Itziar de Rojas, César Rodríguez, Eva-Rodríguez Traver, María Orera, Isabel Hernández, Agustín Ruiz, Carlos Vicario. (2019) Generation of an integration-free iPSC line, ICCSi006-A, derived from a male Alzheimer's disease patient carrying the PSEN1-G206D mutation. *Stem Cell Research*. 101574

## Presentations

Final Degree Project, Final Master Project and final summer internship presentation in the CCRCB .

## Conferences

- Conchita Rábago of Jiménez Díaz Foundation (17 May 2018). Manuel Serrano (IRB) and Juan Carlos Izpisua Belmonte (Salk Institute) presented this day, amongst other renowned researchers.
- Ramón Areces Foundation: 'Stem Cells and organoids: unrevealing their potential towards new treatments' (8 February 2018).
- VII Scientific Seminars of University of Córdoba (27-28 June 2016). Carlos López Otín (University of Oviedo) presented this time on progeria, ageing, cancer and metalloproteinases.

## Courses

- Molecular (M), Clinical (C) and Population (P) Bases of Cardiovascular Disease and Health. Cardona (Barcelona) 15-16 July 2019. Dr. Valentín Fuster (Mount Sinai, president of CNIC and American Colleague of Cardiology) directed and presented this course.
- The Science of Stem Cells (American Museum of Natural History)-Online Course (January 2020).
- Understanding Cancer Metastasis (Johns Hopkins University)-Online Course (January 2020)
- Basics of CRISPR/Cas9 (The Jackson Laboratories; 13 May 2020)

## Seminars

- NIMGenetics: 'Realities, promises and risks of genetic edition in biomedicine'. Presented by Lluís Montoliu (National Center of Biotechnology) 29 June 2018.
- AstraZeneca: May-Britt Moser (Nobel Prize of Medicine or Physiology) presented on 26 September 2018.
- Red de Terapia Celular (TerCel): Herramientas de Edición Molecular/*Tools for molecular Editing* (at CNIC-Spanish National Center of Cardiovascular Research, 22 January 2020).
- II Tec4Bio annual meeting (at CNIC-Spanish National Center of Cardiovascular Research, 6 October 2020).

## Member

CIBERNED (Biomedical Research Center in Neurodegenerative Diseases, associated to Health Institute Carlos III).

