

CV Date	08/09/2021
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Part A. PERSONAL INFORMATION

First Name *	Vicente		
Family Name *	Pérez García		
Sex *	Male	Date of Birth *	
ID number Social Security, Passport *		Phone Number	
URL Web			
Email Address *	vperez@cipf.es		
Researcher's identification number	Open Researcher and Contributor ID (ORCID)*	0000-0001-5594-1607	
	Researcher ID	B-6910-2019	
	Scopus Author ID		

* Mandatory

A.1. Current position

Job Title	Group Leader		
Starting date	2021		
Institution	Centro de Investigación Príncipe Felipe		
Department / Centre			
Country		Phone Number	
Keywords	Physiology; Developmental biology; Reproduction; Cell biology		

A.2. Previous positions

Period	Job Title / Name of Employer / Country
2018 - 2021	Next Generation Fellow / University of Cambridge
2015 - 2018	Postdoctoral researcher / The Babraham Institute / United Kingdom
2014 - 2014	Support staff to research G2 / Centro Nacional de Biotecnología / Spain
2012 - 2013	Support staff to research G2 / Centro Nacional de Biotecnología / Spain
2008 - 2012	"Formación del profesional investigador" (FPI) fellowship / Centro Nacional de Biotecnología / Spain
2006 - 2007	Support staff to research / Universidad de Alicante / Spain

A.3. Education

Degree/Master/PhD	University / Country	Year
PhD in Biochemistry, Molecular Biology, Biomedicine and Biotechnology	Universidad Autónoma de Madrid / Spain	2014
Teaching Certificate ("CAP")	Universidad de Alicante / Spain	2008
University Specialist in Immunology	Universidad de Alicante / Spain	2007
Advanced Studies Diploma	Universidad de Alicante / Spain	2007
Bachelor of Science in Biology	Universidad de Alicante / Spain	2005

Part B. CV SUMMARY

Following my bachelor's **degree in Biology** (University of Alicante, **graduated with honours**), I did my **PhD in Cancer signalling** at the **National Centre for Biotechnology** (Autonomous University of Madrid, Ana Clara Carrera's lab, **Summa Cum Laude and 9 publications, 2 as first author**). Then, I moved to Cambridge to do my **postdoc at the Babraham Institute** in the lab of Myriam Hemberger (epigenetics programme). There, I had a successful postdoctoral training (**5 publications in total**) that resulted in two relevant **first author** publications in the journals **Nature** and **Nature communications**, and one **co-corresponding author** publication in **Front. Endocrinol.** My contribution to the field of placental development

and fertility demonstrate how embryonic lethal mutations impact on placental development (Perez-Garcia V. & Fineberg E. et al. **Nature**, 2018) and how ageing affects reproductive success (Woods L. & Perez-Garcia V. et al., **Nature commun.**, 2017). In addition, I have been invited to **review several manuscripts** for Peer-Review Journals (Dev Cell, Scientific Reports, Human Molecular Reproduction and Biology of Reproduction). Moreover, I pioneered the implementation of **CRISPR/Cas9 genome editing system** in trophoblast stem cells (the precursors of the differentiated cells of the placenta). Improving the method in this difficult-to-transfect cell line allowed me to create and expand my scientific network establishing **national and international collaborations**. My research formation has been complemented with **teaching duties** at several universities (Alicante, Madrid, Murcia, Medellin (Colombia) and Queens' College-Cambridge) and with **public engagement** activities (active member of **Spanish Research UK-Cambridge, Cambridge Science festival, twilight teacher trainings sessions**, etc). After my postdoc, I was awarded a **grant at The University of Cambridge** to develop my independent research project as a **Next Generation Fellow (NGF)** (€210.000 **interviewe for Sir Henry Dale Fellowship; €1.200.000**). Recently, I have been awarded a **Ramon y Cajal contract (2020)** and I will be joining The Centro de Investigación Príncipe Felipe (CIPF) as a Junior Group Leader during 2021. To date, I have been the **supervisor** of **three PhD students** and one **Erasmus+ PhD student**. Combining my experience in cancer signalling, epigenetics and placental development, I am investigating the **molecular mechanisms of cell invasion** shared between the trophoblast cells and metastatic cancer cells using **organoids as a model**.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Publications.

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 Scientific paper.** VPG (AC); GL; PLJ; HO; GJB; AM; MYT; MH. (1/7). 2021. BAP1/ASXL complex modulation regulates epithelial-mesenchymal transition during trophoblast differentiation and invasion eLife. eLife. 10:e63254. ISSN 2050-084X.
- 2 Scientific paper.** Woods L; Morgan N; Xiang Zhao; Dean W; Perez-Garcia V; Hemberger M. (5/6). 2020. Epigenetic changes occur at decidualisation genes as a function of reproductive ageing in mice Development. The company of biologists. 17-147(6):dev185629. ISSN 1477-9129.
- 3 Scientific paper.** Lopez-Tello J; Perez-Garcia V; Khaira J; et al; Sferruzzi-Perri Amanda N. (2/13). 2019. Fetal and trophoblast PI3K p110 α have distinct roles in regulating resource supply to the growing fetus in mice eLife. eLife Sciences Publications. ISSN 2050-084X. WOS (5)
- 4 Scientific paper.** Perez-Garcia V.; Fineberg E.; Wilson R.; et al; Hemberger M.(1/25). 2018. Placentation defects are highly prevalent in embryonic lethal mouse mutants.Nature. Springer Nature Publishing AG. 555-7697, pp.463-468. ISSN 1476-4687. WOS (118)
- 5 Scientific paper.** Perez-Garcia V.; Woods L.; Kieckbusch J.; Wang X.; DeMayo F.; Colucci F.; Hemberger M.(1/7). 2017. Decidualisation and placentation defects are a major cause of age-related reproductive decline.Nature communications. Nature publishing group. 8-1. ISSN 20411723. WOS (32)
- 6 Scientific paper.** Branco MR; King M.; Perez-Garcia Vicente; et al; Reik W.(3/11). 2016. Maternal DNA Methylation Regulates Early Trophoblast Development.Developmental cell. Cell press. 36-2, pp.152-163. ISSN 1534-5807. WOS (84)
- 7 Scientific paper.** Pérez-Garcia V.; Redondo-Muñoz J.; Kumar A.; Carrera AC. (1/4). 2014. Cell activation-induced phosphoinositide 3-kinase alpha/beta dimerization regulates PTEN activity Molecular and Cellular Biology. American Society for Microbiology. 34-18, pp.3359-3373. ISSN 0270-7306. WOS (13)

- 8 **Scientific paper.** Holgado BL; Martínez-Muñoz L.; Sánchez-Alcañiz JA; et al; Pérez-García V.; (5/13). 2013. CXCL12-mediated murine neural progenitor cell movement requires PI3Kbeta activation Molecular Neurobiology. Springer. 48-1, pp.217-231. ISSN 1559-1182. WOS (9)
- 9 **Scientific paper.** Redondo-Muñoz J.; Rodríguez MJ; Silió V.; Perez-García V.; Valpuesta JM; Carrera AC. (4/6). 2012. Phosphoinositide 3-kinase beta controls replication factor C assembly and function.Nucleic Acid research. Oxford Journals. 41-2, pp.855-868. ISSN 0305-1048. WOS (11)
- 10 **Scientific paper.** Calvanese V; Fernández AF; Urduñigo RG; et al; Pérez-García V.; Fraga MF. (6/17). 2011. A promoter DNA demethylation landscape of human hematopoietic differentiation Nucleic Acids Research. Oxford Journals. 40-1, pp.116-131. ISSN 0305-1048. WOS (108)
- 11 **Scientific paper.** Perez-García V.; Kumar A.; Redondo-Muñoz J.; Cortes I.; Chagoyen M.; Carrera AC. (1/6). 2011. Nuclear but not cytosolic phosphoinositide 3-kinase beta has an essential function in cell survival.Molecular and Cellular Biology. American Society for Microbiology. 31-10, pp.2122-2133. ISSN 0270-7306. WOS (74)
- 12 **Review.** Perez-García V; Turco MY. (1/2). 2020. Keep Calm and the Placenta Will Carry On Developmental Cell. Cell press. 54-3, pp.295-296. ISSN 1878-1551.
- 13 **Bibliographic review.** Redondo-Muñoz J.; Perez-García V.; Carrera AC. 2013. Phosphoinositide 3-kinase beta: when a kinase is more than a kinase Trends in Cell & Molecular Biology. Research Trends. 8-83, pp.83-92. ISSN 0972-8449.
- 14 **Scientific paper.** Chrysanthou S; Senner CE; Woods L.; Fineberg E.; Okkenhaug H.; Burge S; Perez-García V.; Hemberger M.(7/8). 2018. A Critical Role of TET1/2 Proteins in Cell-Cycle Progression of Trophoblast Stem Cells.Stem Cell Reports. ISSCR. 10-4, pp.1355-1368. ISSN 22136711. WOS (22)
- 15 **Scientific paper.** Wang Z; Monteiro CD; Jagodnik KM; et al; Perez-García V; Ma'ayan A. (48/49). 2016. Extraction and analysis of signatures from the Gene Expression Omnibus by the crowd Nature communications. Nature Publishing Group. 7-12846. ISSN 2041-1723. WOS (122)
- 16 **Scientific paper.** Redondo-Muñoz J.; Pérez-García V.; Rodríguez MJ.; Valpuesta JM.; Carrera AC. (2/5). 2015. Phosphoinositide 3-kinase beta controls nuclear integrity by modulating RCC1/Ran axis Molecular and Cellular Biology. American Society for Microbiology. 35-1, pp.249-263. ISSN 02707306. WOS (13)
- 17 **Scientific paper.** Cariaga A; Cortés I; García E; et al; Pérez-García V.; Carrera AC. (4/9). 2014. Phosphoinositide 3-kinase p85beta regulates invadopodium formation.Biology Open. 3-10, pp.924-936. ISSN 2046-6390. WOS (13)
- 18 **Scientific paper.** Sempere-Ortells JM; Perez-García Vicente; Marin-Alberca GEmá; Peris-Pertusa Alejandra; Benito JM; Marco F.; Zubcoff J.; Navarro-Blasco F.(2/8). 2009. Quantification and phenotype of regulatory T cells in rheumatoid arthritis according to disease activity score-28 Autoimmunity. Taylor & Francis Online. 42-8, pp.636-645. ISSN 0891-6934. WOS (73), SCOPUS (73)
- 19 **Bibliographic review.** Woods L.; Perez-García V. (AC); Hemberger M.(2/3). 2018. Regulation of Placental Development and Its Impact on Fetal Growth-New Insights From Mouse Models.Frontiers in Endocrinology. Frontiers Media. 9-570. ISSN 1664-2392. WOS (59)

C.3. R&D and innovation projects and contracts

- 1 **Project.** The role of BRCA1-associated protein 1 (Bap1) in regulating trophoblast differentiation and invasiveness. Centre for Trophoblast Research. Vicente Perez García. (University of Cambridge). 01/06/2018-30/05/2021. 210.000 €. Principal investigator.
- 2 **Project.** Papel de PI3K en tumorogenesis y migración celular (RD12/0036/0059). Ministerio de Sanidad y Consumo. Ana Clara Carrera Ramírez. (Centro Nacional de Biotecnología). 01/01/2011-31/12/2014. Team member.
- 3 **Project.** Translational medicine in inflammation and cancer P2010/BMD-2502. Comunidad de Madrid. (Centro Nacional de Biotecnología). 01/01/2010-31/12/2014. Team member.

- 4 **Project.** Función de la isoforma beta de PI3K en fisiología y patología (SAF2010-2019). Ana Clara Carrera Ramírez. (Centro Nacional de Biotecnología). 01/01/2011-31/12/2013. Team member.
- 5 **Project.** Inhibición del enzima fosfoinositido 3-quinasa (PI3K) en inflamación crónica y cáncer: bases moleculares, efectos secundarios y beneficios. Ana Clara Carrera Ramírez. (Centro Nacional de Biotecnología). 01/09/2008-31/08/2012. Team member.
- 6 **Project.** Caracterización y monitorización de la población de células T reguladoras (Treg) en pacientes con artritis reumatoide (AR). Correlación con la clínica y/o pronóstico. Instituto de Salud Carlos III. Jose Miguel Sempere Ortells. (Universidad de Alicante). 01/01/2006-31/12/2008. 53.000 €. Team member.
- 7 **Project.** Desarrollo de la tecnología necesaria para la obtención de nuevos kits de diagnóstico rápido (IIARCO/2004/311). Generalitat Valenciana. Jose Miguel Sempere Ortells. (Universidad de Alicante). 04/01/2004-30/12/2005. 8.778 €. Team member.
- 8 **Contract.**

C.4. Activities of technology knowledge transfer and results exploitation