

Date of the CVA	05/12/2018
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Section A. PERSONAL DATA

Name and Surname	Pedro José Real Luna		
DNI		Age	42
Researcher's identification number	Researcher ID	K-2994-2014	
	Scopus Author ID		
	ORCID	0000-0001-7968-5353	

A.1. Current professional situation

Institution	University of Granada: GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government		
Dpt. / Centre			
Address	Avda. Ilustración 114, 18016, Granada		
Phone		Email	pedro.real@genyo.es
Professional category	Principal Investigator (Ramon y Cajal Researcher)	Start date	2017
UNESCO spec. code	240300 - Biochemistry		
Keywords			

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Biochemistry, Molecular Biology and Biomedicine	Universidad de Cantabria	2005
Degree in Biochemistry	Universidad de Granada	1999

A.3. General quality indicators of scientific production

Nr. of Doctoral Thesis: 1

Nr. of Master's Thesis: 11

Nr. of Degree's Thesis: 3

Total citations: 4001*

Last five years citations: 2304*

h-index: 23*

i10-index : 34*

Nr. of publications in Q1: 42/45

Nr. of First author: 9/43

Nr. of First author and corresponding author: 2/43

Nr. of Last author publications: 6/43

* From Google Scholar updated Dec 5th 2018

Section B. SUMMARY OF THE CURRICULUM

Dr Pedro José Real Luna holds a degree in Biochemistry from University of Granada and a PhD from the University of Cantabria. He completed his PhD period in the laboratory of Dr José Luis Fernández Luna in the Molecular Genetics Unit of the Marqués de Valdecilla University Hospital in Santander, Spain. He studied the effect of chemotherapy in the transcriptional regulation of apoptosis mediators in breast cancer. During this period he was first author and co-author of 8 publications in major journals in the field of Oncology and Molecular Biology. In 2005, Dr. Real joined the laboratory of Dr Adolfo A. Ferrando in the Institute for Cancer Genetics at Columbia University in New York, NY, USA. During his postdoctoral period he focused on the understanding of the molecular mechanisms responsible for T-cell Acute Lymphoblastic Leukemia (T-ALL) development. In Ferrando's lab he participated in 8 publications, three as

first author or co-author, and one patent. These publications have helped to elucidate the role of NOTCH1 and TLX1 proteins in the establishment and the response to chemotherapy in T-ALL patients.

In April 2009, Dr Real joined the laboratory of Dr Pablo Menéndez in the Andalusian Stem Cell Bank (BACM) in Granada, Spain. From February 2010 to January 2017 Dr. Real has been a Miguel Servet Researcher of the National Institute of Health Carlos III leading his own line of research focused on the molecular regulators of human hematopoietic development. From July 2013, Dr Real is Principal Investigator from the Gene Regulation, Stem Cells and Development laboratory in GENyO, Granada, Spain. Currently, he is a Ramon y Cajal Researcher from University of Granada at the Department of Biochemistry and Molecular Biology I in the Faculty of Science and also Principal Investigator in GENyO. In addition, Dr. Real is Professor of Biochemistry in the Degree in Biology from University of Granada and participates as Professor and Invited Professor in the Master of Translational Research and Personalized Medicine (TransMed) and the Master of Regenerative Biomedicine both at University of Granada.

Dr. Real has participated in more than 40 scientific publications in international journals and more than 40 contributions to national and international meetings. Dr Real has led 10 research projects, participated in 3 patents and has formed graduate students, doctoral students and postdoctoral researchers.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 Scientific paper. Mollinedo P; et al. 2018. Cellular and animal models of skin alterations in the autism-related ADNP syndrome. *Scientific Reports*. Nature Publishing Group.
- 2 Scientific paper. Sanchez-Hernandez S; et al. 2018. The IS2 Element Improves Transcription Efficiency of Integration-Deficient Lentiviral Vector Episomes. *Molecular Therapy Nucleic Acids*. Elsevier. 13, pp.16-28.
- 3 Scientific paper. Navarro-Montero O; et al. 2017. RUNX1c Regulates Hematopoietic Differentiation of Human Pluripotent Stem Cells Possibly in Cooperation with Proinflammatory Signaling. *Stem Cells*. Willey Online Library.
- 4 Scientific paper. Lopez-Ruiz E; et al. 2017. Poly(ethylmethacrylate-co-diethylaminoethyl acrylate) coating improves endothelial re-population, bio-mechanical and anti-thrombogenic properties of decellularized carotid arteries for blood vessel replacement. *Scientific Reports*. Nature Publishing Group. 7-1, pp.407.
- 5 Scientific paper. Lourdes Lopez-Onieva; et al. 2017. Induced pluripotent stem cells from Bernard-Soulier Syndrome patient's peripheral blood cells with a p.Phe55Ser mutation in the GPIX gene. *Stem Cell Research*. Elsevier. 20-1, pp.10-13.
- 6 Scientific paper. Lourdes Lopez-Onieva; et al. 2016. Generation of a human induced pluripotent stem cell (iPSC) line from a Bernard-Soulier syndrome patient with the mutation p.Asn45Ser in the GPIX gene. *Stem Cell Research*. Elsevier. 17-3, pp.603-606.
- 7 Scientific paper. Federico Gonzalez-Pozas; et al. 2016. Generation of human pluripotent stem cell lines with suppressed expression of the notch ligand DLL4 using short hairpin RNAs. *Stem Cell Research*. Elsevier. 16-3, pp.735-739.
- 8 Scientific paper. Lourdes Lopez-Onieva; et al. 2016. Generation of induced pluripotent stem cells (iPSCs) from a Bernard-Soulier syndrome patient carrying a W71R mutation in the GPIX gene. *Stem Cell Research*. Elsevier. 16-3, pp.692-695.
- 9 Scientific paper. Toscano MG; et al. 2016. Absence of WASP Enhances Hematopoietic And Megakaryocytic Differentiation In A Human Embryonic Stem Cell Model. *Molecular Therapy*. 24-2, pp.342-352.
- 10 Scientific paper. Montes R; et al. 2015. Generation and characterization of the human iPSC line PBMC1-iPS4F1 from adult peripheral mononuclear cells. *Stem Cell Research*.
- 11 Scientific paper. Toscano MG; et al. 2015. SCL/TAL1-mediated transcriptional network enhances megakaryocyte specification of human embryonic stem cells. *Molecular Therapy*. 23-1, pp.158-170.

- 12 Scientific paper. Cabrera S; et al. 2015. Generation of human iPSC line GRX-MCiPS4F-A2 from adult peripheral blood mononuclear cells (PBMCs) with Spanish genetic background. *Stem Cell Research*. 15-2, pp.337-340.
- 13 Scientific paper. Ayllon V; et al. 2015. The Notch ligand DLL4 specifically marks human hematoendothelial progenitors and regulates its hematopoietic versus endothelial fate. *Leukemia*. 29-8, pp.1741-1753.
- 14 Scientific paper. Ramos-Mejia V; et al. 2014. HOXA9 promotes hematopoietic commitment of human embryonic stem cells. *Blood*.
- 15 Scientific paper. Montes R; et al. 2014. Ligand-independent FLT3 activation does not cooperate with MLL-AF4 to immortalize/transform cord blood CD34+ cells. *Leukemia*.
- 16 Scientific paper. Bueno C; et al. 2013. FLT3 activation cooperates with MLL-AF4 fusion protein to abrogate the hematopoietic specification of human ESCs. *Blood*.
- 17 Scientific paper. Real PJ; et al. 2013. The role of RUNX1 isoforms in hematopoietic commitment of human pluripotent stem cells. *Blood*.
- 18 Scientific paper. Real PJ; et al. 2012. SCL/TAL1 regulates hematopoietic specification from human embryonic stem cells. *Molecular Therapy*. 20-7, pp.1443-1453.
- 19 Scientific paper. Yung S; et al. 2011. Large-scale transcriptional profiling and functional assays reveal important roles for Rho-GTPase signalling and SCL during haematopoietic differentiation of human embryonic stem cells. *Human Molecular Genetics*. 20-24, pp.4932-4946.
- 20 Scientific paper. Gutierrez-Aranda, Ivan; et al. 2010. Human induced pluripotent stem cells develop teratoma more efficiently and faster than human embryonic stem cells regardless the site of injection. *Stem Cells*. 28-9, pp.1568-1570.
- 21 Scientific paper. Ramos-Mejía, Veronica; et al. 2010. Nodal/Activin signaling predicts human pluripotent stem cell lines prone to differentiate toward the hematopoietic lineage. *Molecular Therapy*. 18-12, pp.2173-2181.
- 22 Scientific paper. Real-Luna, Pedro J.; et al. 2010. The TLX1 oncogene drives aneuploidy in T cell transformation. *Nature Medicine*. 16-11, pp.1321-1327.
- 23 Scientific paper. Real-Luna, Pedro J.; et al. 2009. Gamma-secretase inhibitors reverse glucocorticoid resistance in T-ALL. *Nature Medicine*. 15-1, pp.50-58.
- 24 Scientific paper. Real-Luna, Pedro J.; Ferrando, A. 2009. Notch inhibition and glucocorticoid therapy in T-cell Acute Lymphoblastic Leukemia. *Leukemia*. 23-8, pp.1374-1377.
- 25 Scientific paper. Palomero, Teresa et al. 2007. Mutational loss of PTEN induces resistance to NOTCH1 inhibition in T-ALL. *Nature Medicine*. 13-10, pp.1203-1210.
- 26 Scientific paper. Palomero, Teresa; Real-Luna, Pedro J. 2006. NOTCH1 directly regulates c-Myc and activates a Feed-Forward-Loo transcriptional network promoting leukemic cell growth. *PROC. NATL. ACAD. SCI. USA (PNAS)*. 103-48, pp.18261-18266.
- 27 Scientific paper. Real-Luna, Pedro J.; et al. 2005. Blockade of epidermal growth factor receptors chemosensitizes breast cancer cells through up regulation of BNIP3L. *BLOCKADE OF EPIDERMAL GROWTH FACTOR RECEPTORS CHEMOSENSITIZES BREAST CANCER CELLS THROUGH UP REGULATION OF BNIP3L*. *Cancer Research*. 65, pp.8151-8157.
- 28 Scientific paper. Real-Luna, Pedro J.; et al. 2004. Breast Cancer cells evade apoptosis induced by a novel Bcl-2 inhibitors via transcriptional downregulation of Bcl-2. *Cancer Research*. 64, pp.7947-7953.
- 29 Scientific paper. Real-Luna, Pedro J.; et al. 2002. Resistance of chemotherapy via STAT3 dependent overexpression of Bcl-2 in metastatic breast cancer cells. *Oncogene*. 21-50, pp.7611-7618.

C.2. Participation in R&D and Innovation projects

- 1 RYC-2015-18382 Ministerio de Economía, Industria y Competitividad. Pedro J. Real Luna. (Universidad de Granada: GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/02/2017-31/01/2022. 308.600 €.

- 2 Desarrollo de estrategias de Terapia Génica-Celular para el tratamiento del Síndrome de Bernard-Soulier National Health Institute Carlos III. Pedro J. Real Luna. (Universidad de Granada: GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/01/2017-31/12/2019. 110.715 €.
- 3 Optimization of in vitro systems for human platelet generation from human pluripotent stem cells: Alternative to the current blood transfusions. (PI-0030-2014) Rosa María Monte Lorenzo. (GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/08/2015-31/07/2017. 39.100 €.
- 4 Generation of human experimental models of Bernard-Soulier Syndrome using cellular reprogramming Telemaraton Todos Somos Raros. Pedro J Real. (GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/03/2015-30/04/2017. 99.015 €.
- 5 Generation Of Human Experimental Models Of Glanzmann Disease And Bernard-Soulier Syndrome By Cellular Reprogramming European Commission. Lourdes Lopez Onieva. (GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 12/01/2015-11/01/2017. 173.370 €.
- 6 Deciphering the molecular mechanisms of SCL/TAL during human hematopoietic development and leukemogenesis. National Health Institute Carlos III. Pedro J Real. (GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/01/2013-31/12/2015. 120.000 €.
- 7 Implication of the transcription factors SCL in endothelial differentiation from human embryonic stem cells. Health Department of the Andalusian Regional Government. Pedro J Real. (GENyO Centre for Genomics and Oncological Research: Pfizer-University of Granada-Andalusian Regional Government). 01/06/2012-31/05/2013. 18.438 €.
- 8 Implication of the hematopoietic transcription factors RUNX1 and SCL in blood differentiation from human embryonic stem cells. Health Department of the Andalusian Regional Government. Pedro J. Real Luna. (Andalusian Stem Cell Bank-GENyO). 01/06/2011-31/05/2013. 47.500 €.

C.3. Participation in R&D and Innovation contracts

C.4. Patents

- 1 Pedro José Real Luna; Miguel García Toscano; Pablo Menéndez Buján; Francisco Martín Molina; Óscar Navarro Montero; Verónica Ayllón Cases; Verónica Ramos Mejía; Marién Cobo Pulido; Clara Bueno Uroz; Tamara Romero Escobar. PCT/ES2014/070805. Method to produce megakaryocytes and platelets Spain. 24/10/2013. FUNDACION PUBLICA ANDALUZA PROGRESO Y SALUD.
- 2 Pablo Menendez Buján; Verónica Ramos Mejía; Clara Bueno Uroz; Pedro J. Real Luna; Gertrudis Ligeró; Laura Sánchez; Iván Gutierrez Aranda. PCT/ES2011/070236. Use of a conditioned medium from Human Mesenchymal Stem Cells to differentiate human Pluripotent Stem Cells Spain. 08/04/2010. FUNDACION PUBLICA ANDALUZA PROGRESO Y SALUD.
- 3 Pedro J. Real Luna; Adolfo A. Ferrando. PCT/US2008/003268. Synergistic Interaction of NOTCH-1 Inhibitors with Glucocorticoids. United States of America. 13/03/2007. Columbia University.