

Date of the CVA	23/11/2018
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## Section A. PERSONAL DATA

Name and Surname	David Landeira Frias		
DNI		Age	41
Researcher's identification number	Researcher ID	F-5001-2018	
	Scopus Author ID		
	ORCID		

### A.1. Current professional situation

Institution	Universidad de Granada		
Dpt. / Centre	/ Centro de Genomica e Investigaciones Oncologicas (GENYO)		
Address	Centro de genomica e investigacion oncologica (GENYO), PTS, Av. de la Ilustración 114, 18016, Granada		
Phone		Email	<a href="mailto:davidlandeira@ugr.es">davidlandeira@ugr.es</a>
Professional category	Group Leader at GENYO	Start date	2014
UNESCO spec. code	120317 - Informatics; 240300 - Biochemistry; 240401 - Biostatistics; 240700 - Cell biology; 240900 - Genetics; 241500 - Molecular biology		
Keywords			

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

Bachelor/Master/PhD	University	Year
Programa Oficial de Doctorado en Bioquímica y Biología Molecular	Universidad de Granada	2008
Licenciado en Biología Opción Biología Celular y Molecular	Universidad de Sevilla	2001

### A.3. General quality indicators of scientific production

## Section B. SUMMARY OF THE CURRICULUM

I received my master degree in Biology from the University of Sevilla in 2001 and carried out my PhD (2003-2008) in the lab of Miguel Navarro at the "Institute of parasitology and biomedicine Lopez-Neyra (CSIC)" in Granada where I studied epigenetics and nuclear architecture of monoallelic expression in eukaryotes. My PhD work led to five publications in prestigious journals and contributed to establish a universal role of the cohesin complex in the regulation of gene expression in eukaryotes. In my postdoctoral studies (2008-2014) at the "Clinical Science Centre (Medical Research Council/Imperial College)" in the lab of Amanda Fisher in London I worked on the function of polycomb complexes, Tet proteins and cell cycle in pluripotency and nuclear reprogramming. My postdoctoral studies were published in five papers in top journals including Cell and Nature Cell biology.

In 2014 I was awarded a "Ramon y Cajal" tenure track grant to join the "Department of Biochemistry and Molecular Biology II." at the University of Granada. I am group leader of the "Epigenetics in Stem Cells and Cancer Lab" at the "Centre for Genomics and Oncological research GENYO (funded by University of Granada, Junta de Andalucia and Pfizer)" in Granada. We combine traditional molecular biology with genomics and bioinformatics to study stem cells and human disease. My group is currently funded by competitive grants from the Spanish ministry of economy and competitiveness ("Ramon y Cajal" and "Programa estatal de I+D+I Retos/Excelencia" programs) and the andalusian regional government. We have also received funding to incorporate researchers from University of Granada and Juan de la Cierva programs. Importantly, we have recently completed an important study showing that Jarid2 regulates pluripotency by modulating Planar cell polarity signaling and Nanog fluctuations

(Landeira et al. Cell Reports 2015) and collaborated to show that ATF4 may be a valuable prognostic biomarker and therapeutic target in patients with triple negative breast cancer (Gonzalez-Gonzalez et al. Clinical Cancer Research 2018). We are currently applying to national and international funding programs including Howard Hughes Medical Institute and European Research Council.

## Section C. MOST RELEVANT MERITS (ordered by typology)

### C.1. Publications

- 1 Scientific paper. Gonzalez-Gonzalez, A.; et al. 2018. Activating Transcription Factor 4 Modulates TGF $\beta$ -Induced Aggressiveness in Triple-Negative Breast Cancer via SMAD2/3/4 and mTORC2 Signaling Clinical Cancer Research. American association for cancer research. pp.doi: 10.1158/1078-0432.CCR-17-3125.
- 2 Scientific paper. Landeira D \*; et al. 2015. Jarid2 co-ordinates Nanog expression and PCP/Wnt signalling required for efficient ESC differentiation and early embryo development Cell Reports. Cell press. 12-4, pp.573-586.
- 3 Scientific paper. Tsubouchi T; et al. 2013. DNA synthesis is required for reprogramming mediated by stem cell fusion Cell. 14-152(4), pp.873-883.
- 4 Scientific paper. Piccolo FM; et al. 2013. Different roles for Tet1 and Tet2 proteins in reprogramming-mediated erasure of imprints induced by EG cell fusion Molecular Cell. 49, pp.1023-1033.
- 5 Scientific paper. Landeira D; Fisher AG. 2011. Inactive yet indispensable; the tale of Jarid2 Trends in cell biology. 21-2, pp.74-80.
- 6 Scientific paper. Navarro, M.; et al. 2011. Role of RPB7 in RNA pol I transcription in Trypanosoma brucei.Molecular and biochemical parasitology. 180-1, pp.43-47.
- 7 Scientific paper. Pereira, CF.; et al. 2010. ESCs require PRC2 to direct the successful reprogramming of differentiated cells toward pluripotency.Cell stem cell. 6-6, pp.547-603.
- 8 Scientific paper. Landeira, D.; et al. 2010. Jarid2 is a PRC2 component in embryonic stem cells required for multi-lineage differentiation and recruitment of PRC1 and RNA Polymerase II to developmental regulators.Nature cell biology. 12-6, pp.618-642.
- 9 Scientific paper. Landeira, D.; et al. 2009. Cohesin regulates VSG monoallelic expression in trypanosomes.The Journal of cell biology. 186-2, pp.243-297.
- 10 Scientific paper. Peñate, X.; et al. 2009. RNA pol II subunit RPB7 is required for RNA pol I-mediated transcription in Trypanosoma brucei.EMBO reports. 10-3, pp.252-259.
- 11 Scientific paper. Navarro, M.; Peñate, X.; Landeira, D.2007. Nuclear architecture underlying gene expression in Trypanosoma brucei.Trends in microbiology. 15-6, pp.263-333.
- 12 Scientific paper. Landeira, D.; Navarro, M.2007. Nuclear repositioning of the VSG promoter during developmental silencing in Trypanosoma brucei.The Journal of cell biology. 176-2, pp.133-142.

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

- 1 PI-0002-2017, Influencia de una Intervención con Ejercicio Físico sobre Marcadores Asociados al Envejecimiento, Perfil Proteómico y Fragilidad en Personas Mayores con Deterioro Cognitivo Leve SUBVENCIONES PARA LA FINANCIACION DE LA I+D+i BIOMÉDICA Y EN CIENCIAS DE LA SALUD EN LA PROVINCIA DE CÁDIZ. David Jimenez Pavon. (Universidad de Cádiz). 2018-2022. Investigador principal de grupo colaborador.
- 2 PC-0246-2017, Identificación de nuevos marcadores de recurrencia en estadios iniciales del cáncer de pulmón no microcítico mediante el análisis de perfiles de expresión de ARN y la función de polycomb en células tumorales circulantes Consejería de Salud de la Junta de Andalucía. SUBVENCIONES PARA LA FINANCIACION DE LA I+D+i BIOMÉDICA Y EN CIENCIAS DE LA SALUD EN ANDALUCÍA. David Landeira. (Universidad de Granada). 2018-2020. 134.350 €.

- 3 REF6009, Epigenetics analysis of circulating tumor cells in lung cancer CONTRATACIÓN DE PERSONAL LABORAL TÉCNICO DE APOYO Y DE GESTIÓN DE LA I+D+i, EN EL MARCO DEL SISTEMA NACIONAL DE GARANTÍA JUVENIL Y DEL PROGRAMA OPERATIVO DE EMPLEO JUVENIL. David Landeira. (Universidad de Granada). 2018-2019. 27.000 €.
- 4 BFU2016-75233-P, Dissecting determinants of nucleosome positioning variability in pluripotent cells Ministerio de Economía y competitividad. Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia. David Landeira Frias. (Universidad de Granada). 2017-2019. 169.400 €.
- 5 RYC-2012-10019, Epigenetics in stem cells and cancer Ministerio de Economía y Competitividad. Ramon y Cajal. David Landeira. (Universidad de Granada). 2014-2019. 40.000 €.
- 6 REF2813, Analysis of the molecular clock in pluripotent stem cells CONTRATACIÓN DE PERSONAL LABORAL TÉCNICO DE APOYO Y DE GESTIÓN DE LA I+D+i, EN EL MARCO DEL SISTEMA NACIONAL DE GARANTÍA JUVENIL Y DEL PROGRAMA OPERATIVO DE EMPLEO JUVENIL. David Landeira. (Universidad de Granada). 2017-2018. 18.000 €.
- 7 FJCI-2014-21073, Epigenetics in stem cells and cancer Ayuda contratos Juan de la Cierva Formación. David Landeira. (Universidad de Granada). 2016-2017. 50.000 €.
- 8 EPIPLURIRETRO: Epigenetic control and impact of mammalian retrotransposons in pluripotent genomes European Research Council. Starting Grant 2012. Jose Luis Garcia Perez. (Medical Research Council). 2012-2017.
- 9 REPLENICHE: Cell regulation of embryonic stem cell identity and reprogramming potential European Research Council. Advanced Investigator Grant 2011. Amanda Fisher. (Medical Research Council). 2011-2017.
- 10 SAF2013-40891-R, Study of nucleosome positioning at bivalent chromatin in pluripotent cells Ministerio de Economía y Competitividad. Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia. David Landeira. (Universidad de Granada). 2014-2016. 108.900 €.
- 11 Intramural. Epigenetics in stem cells and cancer Centro de Genómica e Investigación Oncológica (GENYO). David Landeira. (Universidad de Granada). 2015-2015. 20.000 €.
- 12 Chromatin modifiers and the transcriptional network that mediates pluripotency Medical Research Council. Amanda Fisher. (Medical Research Council). 2010-2014.
- 13 Epigenetic reprogramming of somatic cells towards pluripotency Medical Research Council. Amanda Fisher. (Medical Research Council). 2008-2012.
- 14 Molecular mechanisms underlying antigenic variation in Trypanosoma brucei. Howard Hughes Medical Institute. Miguel Navarro. (Consejo Superior de Investigaciones Científicas). 2006-2011.
- 15 HEROIC: High throughput epigenetic regulatory organization in chromatin Integrated project. European Union FP6. Marie Curie Research Training Network. Matthias Merckenschlager. (Medical Research Council). 2005-2010.
- 16 Polycomb and REST repressors in embryonic stem cells Medical Research Council. Amanda Fisher. (Medical Research Council). 2005-2010.
- 17 EPIGENOME: Epigenetic Plasticity of the Genome Network of excellence. European Union FP6. Amanda Fisher. (Medical Research Council). 2004-2009.
- 18 Factors required for reprogramming lymphocytes towards pluripotency Medical Research Council. Amanda Fisher. (Medical Research Council). 2004-2009.
- 19 Molecular mechanisms underlying antigenic variation in Trypanosoma brucei Spanish Ministry of Education and Science. Miguel Navarro. (Consejo Superior de Investigaciones Científicas). 2005-2006.
- 20 Molecular and Genetic analysis of antigenic variation in T. brucei. Spanish Ministry of Science and Technology. Miguel Navarro. (Consejo Superior de Investigaciones Científicas). 2002-2005.

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

## C.4. Patents