CV Date	06/12/2023

Part A. PERSONAL INFORMATION

First Name	Jose Luis		
Family Name	Sardina Ortega		
Sex	Not Specified	Date of Birth	
ID number Social Security, Passport			
URL Web			
Email Address			
Open Researcher and Contributor ID (ORCID)	0000-0002-8493-3937		

A.1. Current position

Job Title	Group Leader		
Starting date	2019		
Institution	Josep Carreras Leukaemia Research Institute		
Department / Centre			
Country		Phone Number	
Keywords	240000 - Life Science		

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2018 - 2019	Staff Scientist / Centre for Genomic Regulation / Spain
2012 - 2018	Postdoctoral Researcher / Centre for Genomic Regulation / Spain
2011 - 2012	Postdoctoral Researcher / Consejo Superior de Investigaciones Científicas / Spain
2010 - 2010	Research Personnel / University of Salamanca / Spain
2006 - 2010	PhD Student / University of Salamanca / Spain

A.3. Education

Degree/Master/PhD	University / Country	Year
PhD in Biology	University of Salamanca / Spain	2010
MPhil Theses in Biochemistry	University of Salamanca / Spain	2008
Degree in Biochemistry	University of Salamanca / Spain	2006
Degree in Biology	University of Salamanca / Spain	2005

Part B. CV SUMMARY

After graduating in **Biology** (2005) and **Biochemistry** (2006 - **Extraordinary Graduation Award**-) from the University of Salamanca (USAL), I was awarded a **contract from Junta de Castilla y León to initiate my Ph.D. studies** under the supervision of Dr. Ángel Hernández Hernández (Biochemistry and Molecular Biology Department -USAL-). There, I made significant contributions to the field of hematopoiesis by discovering how reactive oxygen species modulate the activity of the main signaling pathways governing megakaryocytic differentiation. The results of my Ph.D. work were published in several first-authored publications (including a Cell Death and Differentiation article in 2010) and I was awarded the **Extraordinary Ph.D. Award** from the University of Salamanca. After the Ph.D. I joined the laboratory of Prof. Francisco Antequera (IBFG CSIC/USAL). There, I performed research to characterize PTPN13-dependent regulation of b-catenin during megakaryocytic differentiation (first author publication: BBA-Mol Cell Research, 2014). **In 2012, I joined the laboratory of Prof. Thomas Graf** (CRG, Barcelona), where I actively contributed to setting up (second author **Nature** 2014, **co-first Leukemia** 2016) and characterizing highly efficient iPSCs reprogramming systems (co-author Nat Cell Bio 2016; **first and corresponding author**

Cell Stem Cell 2018). During this time, I won a **Juan de La Cierva Senior Fellowship** and was promoted to a Staff Scientist Position. **Finally**, in Fall of 2019, **I was granted a Miguel Servet contract to lead my independent research group** at the Josep Carreras Leukaemia Research Institute in Badalona. Since then, **my team has published 10 articles, some of which I have authored as a senior contributor,**showcasing my leadership in the areas of epigenomics, leukemia, and stem cell research.

As a consequence of my research, I have published **29 peer-reviewed scientific articles** in high-profile international journals, being either first or last author in 10 of them. **22 out of 29 published articles are at least in the 1st Quartile** of their respective area. My works have received over 1300 citations and my **H-index is 17**, according to Google Scholar. In addition, **I have participated in up to 20 highly competitive research projects involving international collaborations** (including ERC Synergy, Blueprint, and Consolider-Ingenio, among others). Of note, in **5** of them I am **acting as Principal Investigator or Co-Coordinator** (**Worldwide Cancer Research Foundation** -2019-; the Ministry of Science and Innovation -2019 and 2022-; AGAUR -2021- and **HORIZON-TMA-MSCA-DN -2022-**). I have 22 participations in conferences. Within them, there are 3 invited talks (EHA-premeeting 2017 and Spetses Summer School in Cancer Epigenetics 2022, CroEpi 2023), 4 oral communications (including EMBO and SEBBM meetings), and 15 posters. I have recently organized the international symposium: The Immune System in Sickness and Health at my host institution and acted as guest editor on a whole special Issue for Frontiers in Cell and Developmental Biology. In addition, I frequently serve as a reviewer for scientific journals (such as Molecular Cell, Cell Reports, or Stem Cell Reports), Ph.D./Postdoc scholarships (Bohringer, AECC), and Grant Agencies (AEI -Spain- or ANR -France).

I have continuously mentored Master and PhD students during my PhD and postdoctoral stages. Nowadays, **I am supervising 4 PhD candidates and 1 postdoc in my research group**.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. T.V. Tian; B. Di Stefano; G. Stik; et al; T. Graf; (5/13) J.L. Sardina. 2019. Whsc1 links pluripotency exit with mesendoderm specification. Nature Cell Biology. Nature Publishing Group. 21-7, pp.824-834.

2 **Scientific paper**. (1/17) J.L. Sardina (AC); S. Collombet; T.V. Tian; et al; T. Graf. 2018. Transcription Factors Drive Tet2-Mediated Enhancer Demethylation to Reprogram Cell Fate. Cell Stem Cell. Cell Press. 23-5, pp.727-741. ISSN 19345909.

3 **Scientific paper**. Bruno Di Stefano; Samuel Collombet; J.S Jakobsen; et al; T. Graf; (5/14) J.L Sardina. 2016. C/EBP? creates elite cells for iPSC reprogramming by upregulating Klf4 and increasing the levels of Lsd1 and Brd4. NAT CELL BIOL. Nature publishing group. 18-4, pp.371-381.

4 **Scientific paper**. (1/20) Clara Bueno*; Jose Luis Sardina*; Bruno Di Stefano; et al; P. Menendez. 2016. Reprogramming human B cells into induced pluripotent stem cells and its enhancement by C/EBP?. Leukemia. Nature publishing group. 30-3, pp.674-682. https://doi.org/10.1038/leu.2015.294

5 **Scientific paper**. JL Sardina; G López Ruano; R Prieto Bermejo; et al; A Hernández Hernández. 2014. PTPN13 regulates cellular signalling and ?-catenin function during megakaryocytic differentiation. BBA-MOL CELL RES. Elsevier. 1843-12, pp.2886-2899.

6 **Scientific paper**. Bruno Di Stefano; José Luis Sardina Ortega; Chris Van Ovelen; et al; Thomas Graf. 2014. C/EBP? poises B cells for rapid reprogramming into induced pluripotent stem cells. Nature. Nature Publishing Group. 506, pp.235-239.

7 **Scientific paper**. J.L. Sardina; G. Lopez-Ruano; L.I. Sanchez-Abarca; et al; A. Hernandez-Hernandez. 2010. p22phox-dependent NADPH oxidase activity is required for megakaryocytic differentiation. CELL DEATH DIFFER. 17-12, pp.1842-1854.

8 **Scientific paper**. C. Ijurko; M. Romo-González; C. García-Calvo; et al; A. Hernández-Hernández; (4/12) J.L. Sardina. 2023. NOX2 control over energy metabolism plays a role in acute myeloid leukaemia prognosis and survival. Free Radical Biology and Medicine. Elsevier. 209-1, pp.18-28. https://doi.org/10.1016/j.freeradbiomed.2023.10.013

9 **Scientific paper**. O. Morante-Palacios; G. Godoy-Tena; J. Calafell-Segura; L. Ciudad; E.M. Martínez-Cáceres; (6/7) J.L. Sardina; E. Ballestar. 2022. Vitamin C triggers NF-κB-driven epigenomic reprogramming and enhanced immunogenic responses of dendritic cells. Nucleic Acids Research. Oxford Academic. 50-19, pp.10981-10994. https://doi.org/10.1093/nar/gkac941

10 **Scientific paper**. A. Azagra; A. Meler; O. de Barrios; et al; M. Parra; (14/16) J.L. Sardina. 2022. The HDAC7–TET2 epigenetic axis is essential during early B lymphocyte development. Nucleic Acid Research. Oxford Academic. 50-15, pp.8471-8490. https://doi.org/10.1093/nar/gkac619

11 **Scientific paper**. A. Lazarenkov; (2/2) J.L. Sardina (AC). 2022. Dissecting TET2 Regulatory Networks in Blood Differentiation and Cancer. Cancers (Basel). MDPI. 14-3, pp.830-830. https://doi.org/10.3390/cancers14030830

12 **Scientific paper**. T.V.; (2/2) J.L. (AC). 2021. Uncovering Sequence-Specific Transcription Factors Interacting with TET2. Methods in Molecular Biology. SpringerLink. 2272-250, pp.239-250. https://doi.org/10.1007/978-1-0716-1294-1_14

13 **Scientific paper**. Y. Xiu; Q. Dong; L. Fu; et al; C. Zhao; (10/30) H-h. Xue. 2019. Coactivation of NF-κB and Notch signaling is sufficient to induce B cell transformation and enables B-myeloid conversion. Blood. American Society of Hematology. https://doi.org/10.1182/blood.2019001438

14 **Scientific paper**. S. Collombet; (2/8) C. van Oevelen*; J.L. Sardina*; W. Abou Jaoudé; B. Di Stefano; Thomas-Chollier; T. Graf; D. Thieffry. 2017. Logical modeling of lymphoid and myeloid cell specification and transdifferentiation. P NATL ACAD SCI USA. 114-23, pp.5792-5799. https://doi.org/doi: 10.1073/pnas.1610622114.

15 **Scientific paper**. Chris van Oevelen; Samuel Collombet; Guillermo Vicent; et al; Thomas Graf; (9/13) Denis Thieffry. 2015. C/EBP? Activates Pre-existing and De Novo Macrophage Enhancers during Induced Pre-B Cell Transdifferentiation and Myelopoiesis. STEM CELL REP. ISSCR. 5-2, pp.232-247. https://doi.org/10.1016/j.stemcr.2015.06.007

C.2. Conferences and meetings

1 J.L. Sardina. The interplay between RNA sequestration in P-bodies and chromatin architecture sustains myeloid leukemia. XIII Annual Chromatin and Epigenetics symposium. Catalan Society of Biology (SCB). 2023. Participatory - invited/keynote talk.

2 J.L. Sardina. Transcription factors drive TET2-mediated enhancer demethylation during immune cell fate decisions. Cancer Epigenetics: Principles, Applications and single-cell resolution. INTERCEPT-MDS. 2022. Greece. Participatory - invited/keynote talk. Conference.

3 J.L. Sardina; S. Collombet; T.V. Tian; et al; T. Graf. Transcription Factors Drive Tet2-Mediated Enhancer Demethylation to Reprogram Hematopoietic Cell Fate. Genetics and Epigenetics of Leukemia and Lymphoma: From Knowledge to Applications. Josep Carreras Leukaemia Research Institute. 2019. Spain. 'Participatory - poster. Conference.

4 J.L. Sardina; S. Collombet; T.V. Tian; et al; T. Graf. Transcription Factors Drive Tet2-Mediated Enhancer Demethylation to Reprogram Cell Fate. Cancer Genetics and Epigenetics. Gordon Research Conferences. 2019. Italy. 'Participatory - poster. Conference.

5 J.L. Sardina; S. Collombet; T.V. Tian; et al; T. Graf. Transcription Factors Drive Tet2-Mediated Enhancer Demethylation to Reprogram Cell Fate. From Epigenome towards Epitranscriptome in Cell Fate Choice. EMBO. 2018. Italy. Participatory - oral communication.
6 J.L. Sardina; S. Collombet; T.V. Tian; et al; T. Graf. Transcription Factors Drive Tet2-Mediated Enhancer Demethylation to Reprogram Cell Fate. 41 Congreso de la Sociedad Española de Bioquímica y Biología Molecular. Sociedad Española de Bioquímica y Biología Molecular. 2018. Spain. Participatory - oral communication.
7 J.L. Sardina; S. Collombet; A. Gomez; et al; T. Graf. DNA hydroxy-methylation and methylation dynamics during rapid reprogramming of somatic cells into iPSCs.. Premeeting EHA. European Hematology Association. 2017. Spain. Participatory - oral communication. Conference.
8 J.L. Sardina; S. Collombet; A. Gomez; et al; T. Graf. DNA hydroxy-methylation and methylation dynamics during rapid reprogramming of somatic cells into iPSCs.. ISSCR 2017. International Society for Stem Cell Research. 2017. United States of America. 'Participatory - poster. Conference.

C.3. Research projects and contracts

1 **Project**. 101119927, Storming Immune Monogenic Conditions through Multiomic and Gene Editing (IMMERGE). European Commission. J.L. Sardina. (Josep Carreras Leukaemia Research Institute). 01/09/2023-31/08/2027. 2.635.624 €. Co-ordinator.
2 **Project**. PID2022-140376OB, Dissecting the DNA Methylation Underpinnings of Healthy and Malignant Myeloid Lineage Ageing. Ministerio de Ciencia e Innovación. J.L Sardina. (Josep Carreras Leukaemia Research Institute). 01/10/2023-30/09/2026. 237.500 €. Principal investigator.
3 **Project**. PID2019-111243RAI00, Descifrando el impacto de TET2 sobre la estructura de la cromatina en el inicio leucémico. Ministerio de Ciencia e Innovación. J.L. Sardina. (Josep Carreras Leukaemia Research Institute). 01/06/2020-31/05/2023. 145.200 €. Principal investigator.
4 **Project**. 20-0269, Uncovering the regulation of chromatin structure by TET2 during leukemic cell fate decisions. World Wide Cancer Research Foundation. JL. Sardina. (Josep Carreras Leukaemia Research Institute). 01/02/2020-01/02/2023. 216.500 €. Principal investigator.
5 **Project**. Dynamics of human genome architecture in stable and transient gene expression changes (4D-GENOME). European Research Council. Miguel Beato. (Centre for Genomic Regulation). 2014-2019. 12.000.000 €. Team member.
6 **Project**. SAF2015-68740-P, DNA hydroxymethylation and methylation dynamics during ultra-fast reprogramming of somatic cells. Ministerio de Economia y Competitividad. Graf Thomas. (Centro de Regulación Genómica). 01/01/2016-31/12/2018. 403.172 €. Co-ordinator.
7 **Project**. Papel de C/EBPa en la reprogramacion de Celulas B a celulas madre hematopoyeticas. Ministerio de Ecomomía y Competitividad. Thomas Graf. (Centre for Genomic Regulation). 01/01/2013-31/03/2016. 234.000 €. Others.
8 **Project**. Determinants in Transition of Embryonic Stem Cells Between Preimplantation “Naïve” State and Postimplantation “Primed” State. Centre for Genomic Regulation. J.L Sardina. (Centre for Genomic Regulation). 01/01/2015-31/12/2015. 15.000 €. Co-ordinator.
9 **Project**. Dinámica de la cromatina durante la replicación y la recombinación del DNA. Ministerio de Ciencia e Innovación. Investigación. Francisco Antequera Marquez. (INSTITUTO DE BIOLOGIA FUNCIONAL Y GENOMICA). 01/01/2012-31/12/2014. 515.061 €.
10 **Project**. Papel de las especies reactivas del oxígeno en la megacariopoyesis. Junta de Castilla y León. Angel Hernandez Hernandez. (University of Salamanca). 2010-2012. 40.000 €.
11 **Project**. Estudio de la función y de la regulación de la expresión de PTP-Bas durante la diferenciación megacariocítica. MINISTERIO DE EDUCACION Y CIENCIA. Angel Hernandez Hernandez. (University of Salamanca). 01/10/2006-31/12/2009. 72.600 €.