

CV Date	04/07/2024
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Part A. PERSONAL INFORMATION

First Name	Veronica		
Family Name	Ramos Mejia		
Sex	Female	Date of Birth	03/03/1971
ID number Social Security, Passport	78304781Q		
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A.1. Current position

Job Title	Principal Investigator / Assistant Profesor		
Starting date	2023		
Institution	GENYO - University of Granada		
Department / Centre	Department of Cell Biology / Faculty of Sciences		
Country		Phone Number	
Keywords	Biomedicine		

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

Period	Job Title / Name of Employer / Country
2013 - 2021	Principal Investigator - Miguel Servet I / II / GENYO
2011 - 2013	Senior Postdoctoral Researcher / GENYO
2009 - 2011	Marie Skłodowska-Curie Fellow Postdoctoral researcher / Andalusian Stem Cell Bank
2008 - 2009	Postdoctoral researcher / Andalusian Stem Cell Bank
2006 - 2008	Postdoctoral researcher / McMaster University, Ontario, Canada
2005 - 2006	Postdoctoral researcher / Robarts Research Institute. The University of Western Ontario, Canada.

A.3. Education

Degree/Master/PhD	University / Country	Year
PhD in Biochemistry	Universidad Nacional Autónoma de México	2004
BSc Biochemistry	Universidad Nacional Autónoma de Mexico	1994

Part B. CV SUMMARY

I am a Stem Cell scientist at the Centre for Genomics and Oncological Research (GENYO, Granada) with 20 years of research experience. My research focuses on human Pluripotent Stem Cells (hPSCs) biology and their use as cellular models for human development and disease modeling. I performed my Ph.D. studies in developmental biology and received my Ph.D. degree from National Autonomous University of Mexico. In 2004, I moved to Ontario, Canada, and joined Dr. Mick Bhatia's laboratory, a pioneer research group in hPSCs biology and hematopoiesis. As a postdoctoral researcher, I investigated the developmental programming of human adult hematopoiesis using hPSCs models. In September 2008, I started working at the Andalusian Stem Cell Bank (Granada, Spain), where I performed research on hPSC biology and hematopoietic development. In 2009, I obtained a Marie Curie - International Incoming Fellowship and continued working with hPSCs as cellular models to study childhood leukemia. Additionally, I explored cellular reprogramming as a strategy to investigate oncogenic transformation. In 2013, I earned a Miguel Servet type I Contract of the National Institute of Health Carlos III (ISCIII, Spain) and continued my work on hematopoietic development and

childhood leukemias. In 2017, I obtained the Miguel Servet type II Contract (ISCIII, Spain) and became Principal Investigator of the Gene Regulation, Stem Cells and Development laboratory, in GENYO. In October of 2023 I joined the University of Granada as Associated Professor in the Department of Cell Biology.

Currently, I am leading research on modelling carcinogenesis with stem cells and pediatric leukemia. I am member of the Spanish Society of pediatric Hemato-Oncology (SEHOP), the European Society for Paediatric Oncology (SIOPE). Also, I am participating in the Mexican National Program on Childhood Leukemia (2019-2024, CONACYT, México) and in the "HARMONY Consortium" (Healthcare Alliance for Resourceful Medicines Offensive Against Neoplasm in Hematology) from the European Union-Innovative Medicines Initiative 2 ("IMI").

I have participated in 54 peer-review publications, 10 of them as first author, 6 as last author and 9 as corresponding author, many of which in high-profile Journals. I have also contributed to four book chapters and 30 national and international meetings, 2 of them as guest speaker (2011 and 2017, International Symposium on Stem Cells and Regenerative Medicine, Mexico). I have participated in 14 competitive funding projects (2 international), 7 of them as the Principal Investigator. Importantly, our work on pediatric cancer is being funded by patients' associations and public organizations. I have been involved in the development of new techniques for stem cells derivation, maintenance and differentiation that are registered under the patent numbers P201331568, P201030645 and P0201030512.

Since 2016, I have mentored 1 Postdoctoral researcher, 1 PhD Student, 16 Master students and 6-degree students. I have also trained a Research Technician who is currently working as lab manager in a Biotechnology Company in UK. Currently, I am supervising 2 master students, 1 PhD student, 2 Postdoctoral researchers and 3 Research Technicians.

Part C. RELEVANT ACCOMPLISHMENTS

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

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

- 1 **Scientific paper.** Iván Ellson; Jordi Martorell-Marugan; Pedro Carmona-Saez; (4/4) Verónica Ramos-Mejía (AC). 2024. MiRNA expression as outcome predictor in pediatric AML: systematic evaluation of a new model. NPJ Genomic Medicine. Nature. IN PRESS.
- 2 **Scientific paper.** Adolfo López-Ornelas; Itzel Escobedo-Avila; Gabriel Ramírez-García; et al; Iván Velasco; (18/21) VERONICA RAMOS-MEJIA. 2023. Human Embryonic Stem Cell-Derived Immature Midbrain Dopaminergic Neurons Transplanted in Parkinsonian Monkeys. Cells. MDPI. 12-23, pp.2738. <https://doi.org/10.3390/cells12232738>
- 3 **Scientific paper.** Gonzalo Martinez-Navajas; Jorge Ceron-Hernandez; Iris Simon; et al; Pedro J Real; (13/15) VERONICA RAMOS-MEJIA. 2023. Lentiviral gene therapy reverts GPIX expression and phenotype in Bernard-Soulier syndrome type C. Molecular therapy. Nucleic acids. Cell Press. 33, pp.75-92. <https://doi.org/10.1016/j.omtn.2023.06.008>
- 4 **Scientific paper.** Joan Domingo-Reinés; Rosa Montes; Adrián Garcia-Moreno; et al; (14/14) VERONICA RAMOS-MEJIA (AC). 2023. The pediatric leukemia oncoprotein NUP98-KDM5A induces genomic instability that may facilitate malignant transformation. Cell Death & Disease. Nature. 14-6, pp.357. <https://doi.org/10.1038/s41419-023-05870-5>
- 5 **Scientific paper.** Oscar Estupinan; Veronica Rey; Juan Tornín; et al; Rene Rodriguez; (13/15) VERONICA RAMOS-MEJIA. 2023. Abrogation of stemness in osteosarcoma by the mithramycin analog EC-8042 is mediated by its ability to inhibit NOTCH-1 signaling. Biomedicine & Pharmacotherapy. Elsevier. 162, pp.114627. <https://doi.org/10.1016/j.biopha.2023.114627>
- 6 **Scientific paper.** J Domingo-Reines; G Martínez-Navajas; R Montes; et al; (12/12) VERÓNICA RAMOS-MEJÍA (AC). 2022. Generation of a H9 Clonal Cell Line With Inducible Expression of NUP98-KDM5A Fusion Gene in the AAVS1 Safe Harbor Locus. Frontiers in Cell and Developmental Biology. Frontiers. 10-846092. ISSN 2296-634X. <https://doi.org/10.3389/fcell.2022.846092>

- 7 **Scientific paper.** R Diaz de la Guardia; T Velasco-Hernandez; F Gutierrez-Agüera; et al; P Menendez; (16/20) VERÓNICA RAMOS-MEJÍA. 2021. Engraftment characterization of risk-stratified AML patients in NSGS mice. *Blood Advances*. ISSN 2473-9537. <https://doi.org/10.1182/bloodadvances.2020003958>
- 8 **Scientific paper.** A Gallardo; A Molina; HG Asenjo; et al; D Landeira; (6/10) VERONICA RAMOS-MEJIA. 2020. The Molecular Clock Protein Bmal1 Regulates Cell Differentiation in Mouse Embryonic Stem Cells. *Life Science Alliance*. EMBO press. 3-5, pp.e201900535. <https://doi.org/10.26508/lsa.201900535>
- 9 **Scientific paper.** A Carrillo-Galvez; S Galvez-Peisl; JE Gonzalez-Correa; et al; P Anderson; (7/12) VERONICA RAMOS-MEJIA. 2020. GARP is a key molecule for mesenchymal stromal cell responses to TGF- β and fundamental to control mitochondrial ROS levels. *STEM CELLS Translational Medicine*. Wiley. 9-5, pp.636-650. <https://doi.org/10.1002/sctm.19-0372>
- 10 **Scientific paper.** F Gonzalez-Pozas; R Montes; J Domingo-Reines; V Ayllón; (5/5) VERONICA RAMOS-MEJIA (AC). 2017. Establishment of 2 control and 2 hPSC cell lines constitutively expressing the Notch ligand DLL4. *Stem Cell Research*. Elsevier. 25, pp.274-277. <https://doi.org/10.1016/j.scr.2017.07.008>
- 11 **Scientific paper.** J Domingo-Reines; A López-Ornelas; R Montes; et al; (11/11) VERONICA RAMOS-MEJIA (AC). 2017. Hoxa9 and EGFP reporter expression in human Embryonic Stem Cells (hESC) as useful tools for studying human development. *Stem Cell Research*. Elsevier. 25, pp.286-290. <https://doi.org/10.1016/j.scr.2017.08.004>
- 12 **Scientific paper.** ; V Ayllon; M Vogel-González; J Domingo-Reinés; R Montes; L Morales-Cacho; (7/7) VERONICA RAMOS-MEJIA (AC). 2017. New hPSC-based human models to study pediatric Acute Megakaryoblastic Leukemia harboring the fusion oncogene RBM15-MKL1. *Stem Cell Research*. Elsevier. 19, pp.1-5. <https://doi.org/10.1016/j.scr.2016.12.019>
- 13 **Scientific paper.** Muñoz-López; Romero-Moya; Prieto; (4/7) V RAMOS-MEJIA; AF Fernandez; C Bueno; P Menendez. 2016. Development Refractoriness of MLL-Rearranged Human B Cell Acute Leukemias to Reprogramming into Pluripotency. *Stem Cell Reports*. The International Society for Stem Cell Research (ISSCR). 7-4, pp.602-618. <https://doi.org/10.1016/j.stemcr.2016.08.013>
- 14 **Scientific paper.** (1/7) VERONICA RAMOS-MEJIA (AC); Oscar Navarro; Veronica Ayllon; Clara Bueno; Tamara Romero; Pedro Real; Pablo Menendez. 2014. HOXA9 promotes hematopoietic commitment of human embryonic stem cells. *Blood*. bloodjournal.hematologylibrary.org. 124-20, pp.3065-3075. <https://doi.org/doi:10.1182/blood-2014-03-558825>.
- 15 **Scientific paper.** B McIntyre; (2/8) VERONICA RAMOS-MEJIA; S Rampalli; R Mechael; JH Lee; C Alec; G Sheng; Mick Bhatia. 2013. Gli3-mediated hedgehog inhibition in human pluripotent stem cells initiates and augments developmental programming of adult hematopoiesis. *Blood*. bloodjournal.hematologylibrary.org. 121-9, pp.1543-1552. <https://doi.org/10.1182/blood-2013-03-508825>
- 16 **Scientific paper.** (1/9) VERONICA RAMOS-MEJIA (AC); Agustin Fernandez; Veronica Ayllon; et al; Pablo Menendez. 2012. Maintenance of human embryonic stem cells in mesenchymal stem cell-conditioned media augments hematopoietic specification. *Stem Cells and Development*. Mary Ann Liebert, Inc.. 21-9, pp.1549-1558. <https://doi.org/10.1089/scd.2011.0400>
- 17 **Scientific paper.** (1/7) VERONICA RAMOS-MEJIA (AC); Rosa Montes; Clara Bueno; Veronica Ayllon; Pedro J Real; Rene Rodriguez; Pablo Menendez. 2012. Residual expression of the reprogramming factors prevents differentiation of iPSC generated from human fibroblasts and cord blood CD34+ progenitors. *PLoS One*. PLoS one. 7-4, pp.e35824.. <https://doi.org/10.1371/journal.pone.0035824>
- 18 **Scientific paper.** (1/3) VERONICA RAMOS-MEJIA (AC); Mario F Fraga; Pablo Menendez. 2012. iPSCs from cancer cells: challenges and opportunities. *Trends in Molecular Medicine*. Elsevier. 18-5, pp.245-247. <https://doi.org/10.1016/j.molmed.2012.04.001>
- 19 **Scientific paper.** (1/9) VERONICA RAMOS-MEJIA (AC); GJ Melen; L Sanchez; et al; P Menendez. 2010. Nodal/Activin signaling predicts human pluripotent stem cell lines prone to differentiate toward the hematopoietic lineage. *Molecular Therapy*. Nature. 18(12):2173-81-12, pp.2173-2181. <https://doi.org/10.1038/mt.2010.179>

- 20 Scientific paper.** (1/4) VERONICA RAMOS-MEJIA (AC); M Muñoz-Lopez; JL Garcia-Perez; P Menendez. 2010. iPSC lines that do not silence the expression of the ectopic reprogramming factors may display enhanced propensity to genomic instability. *Cell Research. Nature.* 20-10, pp.1092-1095. <https://doi.org/10.1038/cr.2010.125>
- 21 Scientific paper.** TE Werbowetski-Ogilvie; M Bossé; M Stewart; et al; Mick Bhatia; (5/16) VERONICA RAMOS-MEJIA. 2009. Characterization of human embryonic stem cells with features of neoplastic progression. *Nature Biotechnology. Nature.* 27-1, pp.91-97. <https://doi.org/10.1038/nbt.1516>
- 22 Scientific paper.** K Vijayaragavan; E Szabo; M Bossé; (4/6) VERONICA RAMOS-MEJIA; RT Moon; Mick Bhatia. 2009. Noncanonical Wnt signaling orchestrates early developmental events toward hematopoietic cell fate from human embryonic stem cells. *Cell Stem Cell. Elsevier.* 4-3, pp.248-262. <https://doi.org/10.1016/j.stem.2008.12.011>
- 23 Scientific paper.** SC Bendall; MH Stewart; P Menendez; et al; Mick Bhatia; (7/12) VERONICA RAMOS-MEJIA. 2007. IGF and FGF cooperatively establish the regulatory stem niche of pluripotent human cells. *Nature. Nature.* 448-7157, pp.1015-1021. <https://doi.org/10.1038/nature06027>
- 24 Review.** (1/4) VERONICA RAMOS-MEJIA; J Arellano-Galindo; JM Mejía-Arangure; M Cruz-Muñoz. 2022. A NK cell odyssey: from bench to therapeutics against hematological malignancies. *Frontiers in Immunology.* 10, pp.846092. ISSN 1664-3224. <https://doi.org/10.3389/fimmu.2022.803995>

C.3. Research projects and contracts

- 1 Project.** MODELING CARCINOGENESIS WITH STEM CELLS TO FIND NEW IMMUNOTHERAPY TARGETS (TARGETSTEM). Verónica Ramos-Mejía. (GENYO). 13/10/2022-13/10/2026. 199.650 €.
- 2 Project.** Análisis integrado de patrones transcripcionales en Leucemia Mieloide Aguda Pediátrica- PEJ2018-004549-A. Ivan Ellson. (GENYO). 01/01/2020-31/12/2022. 39.200 €. Principal investigator.
- 3 Project.** Caracterización del microambiente tumoral y generación con este de nuevas herramientas preclínicas 2d y 3d estromales para el estudio y evaluación del tratamiento de la leucemia mieloide aguda infantil. CONSEJERÍA DE SALUD Y FAMILIAS-Secretaría General de Investigación, Desarrollo e Innovación en Salud. VERONICA RAMS-MEJIA. (GENYO). 23/12/2019-23/12/2022. 59.990 €. Co-ordinator.
- 4 Project.** PI17/01574, Estudio de la leucemia mieloide aguda pediátrica y desarrollo de modelos de enfermedad. Instituto de Salud Carlos III. (GENYO). 08/01/2018-31/12/2020. 123.420 €. Principal investigator.
- 5 Project.** OH-0027-2018, Estudio de la leucemia mieloide aguda pediátrica y desarrollo de modelos de enfermedad. FPS 2017 Oncología y oncohematología - Proyectos I+i - Proyectos de Investigación en Salud.. Joan Domingo Reines. (GENYO). 01/02/2019-31/07/2020. 50.000 €. Principal investigator.
- 6 Project.** Optimización de un sistema de organoide de médula ósea para la diferenciación hematopoyética a partir de células pluripotentes humanas. (Centro de Investigación Biomédica de Oriente). 10/06/2019-11/09/2019. 8.800 €. Principal investigator.

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

- 1** Pablo Menendez; Mario Delgado; Rene Rodriguez; Ruth Rubio; Gertrudis Ligeró; Laura Sanchez; Ivan Gutierrez-Aranda; VERONICA RAMOS-MEJIA; Clara Bueno. P201030645. Procedimiento para la obtención de células madre mesenquimales para uso biomédico Spain. 30/04/2010. FUNDACION PUBLICA ANDALUZA PROGRESO Y SALUD.
- 2** Pablo Menendez; VERONICA RAMOS-MEJIA; Clara Bueno; Pedro J Real; Gertrudis Ligeró; Laura Sanchez; Ivan Gutierrez-Aranda. P0201030512. Uso de un medio de cultivo condicionado por células madre mesenquimales para la diferenciación de células madre pluripotentes humanas Spain. 08/04/2010. FUNDACION PUBLICA ANDALUZA PROGRESO Y SALUD.