CURRICULUM VITAE ABREVIADO (CVA)

***IMPORTANT** – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.*

Part A. PERSONAL INFORMATION

First name	Roberto		
Family name	de la Herrán Moreno		
Gender (*)		Birth date (dd/mm/yyyy)	
ID number			
e-mail		URL Web https://www.researchgate.net/profile/Roberto-Herran	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-3772-4374	

(*) Mandatory

A.1. Current position

Position	Full Professor			
Initial date	22/10/2021			
Institution	University of Granada			
Department/Center	Genetics	Faculty of Science		
Country	Spain		Teleph. number	
Key words	Genetics; genomics; aquaculture; molecular markers; molecular diagnosis; sex determination; evolution, molecular phylogeny			

A.2. Previous positions (research activity interuptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2004-2021	Senior Lecturer, University of Granada (Spain). Interrupted to take Full Professor position
2001-2004	Lecturer, University of Granada (Spain). Interrupted to take Senior Lecturer position
2000-2001	Postdoctoral Research Fellow (FPI), Institute of Marine Biology of Crete (Greece). Interrupted to take Lecturer position

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
BSc in Biology	University of Salamanca (Spain)	1992
PhD in Biology	University of Granada (Spain)	1998

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Professional Career: I am in possession of a BSc in Biology from the University of Salamanca (1987-1992) and a PhD in Biology from the University of Granada (1998). My research career commenced with a grant (1993-1996) from the Junta de Andalucía (Andalusian Regional Government) in the field of Genetics in Aquaculture. This fellowship enabled me to undertake several extended visits to the IFAPA Center "El Toruño" (Cadiz), where I gained hands-on experience in fish and mollusk culture techniques (reproduction, feeding, larval rearing, etc.). Concurrently, I completed my doctoral thesis at the Department of Genetics of the University of Granada. In 2000, I obtained a postdoctoral fellowship (FPI) and was based at the Institute of Marine Biology of Crete (IMBC) in Greece, under the direction of Dr. Zouros. During this time, I continued working in Genetics in Aquaculture, developing molecular markers for the analysis of genetic variability. I have been a member of the BIO200 Molecular Genetics research group of the PAI since 1995 and a researcher belonging to the Campus of International Excellence of the Sea (CEI-MAR) since 2018. Since 2001, when I was awarded an Associate Professor contract, and until now as Full Professor, I have combined my research and teaching activities in the Department of Genetics at the University of Granada, where I am the Director.

Scientific contributions and founding: I have published 74 articles in journals indexed in the JCR, 27 of which were in the first quartile (Q1), and I have been the first or last author in 18 of these. I would also like to emphasise that I have been cited 2547 times (h-index 31, Google Scholar) and have published six articles in the first decile (D1) over the last eight years, demonstrating the current and recent quality of my publications. This scientific production has been made possible thanks to the participation in 32 competitive research projects or contracts, both regional and national, and the role of Principal Investigator/Co-Principal Investigator in 8 of them. I have enjoyed uninterrupted funding since 1993, with a cumulative total exceeding 1.9 million euros. Furthermore, it has facilitated collaboration with several distinguished research groups, both nationally and internationally. I have attended over 100 national and international congresses and contributed to 10 books or book chapters.
Contributions to society: I have collaborated with companies and industries such as Piscifactoría Riofrío, Empresa de Gestión Medioambiental S.A., Caspian Pearl, Patronato de La Alhambra, and GESTEMA SUR through various contracts for the execution of genetic studies, providing consulting reports for some of them. In addition, we have applied for five patents or variety protection, and I acted as a genetics expert witness in a court case. I am member of the Spanish Aquaculture Society (SEA) and Spanish Genetics Society (SEG).
Popularization: I organise and coordinate the Department of Genetics' training activities during Science Week. I have done this since 2011. Recently (2022), I worked with other editors to put together a book about the impact of Mendel on today's society. The book was published by the editorial service of the UGR. I have also taken part in many courses and talks on how science is shared with the public.
Contributions to training young researchers: I have managed 10 researchers working on different contracts for projects or the research group. I have been responsible for supervising five doctoral theses and I am currently working on two more. Today, these students have either become researchers in different centres or professors at universities.
Evaluation committees: I am an advisor of the National Commission for the Evaluation of Research Activity (CNEAI) of ANECA, Evaluator of the State Evaluation Agency. Division of scientific and technical coordination, evaluation and monitoring, External Evaluator of the National Agency for Research and Innovation of Uruguay (ANII), and Member of the Ethics Committee in Research with Modified Organisms and Biological Agents of the University of Granada.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

1. De la Herrán R, Hermida M, Rubiolo JA, …, Martínez P (AC). 2023. A chromosome-level genome assembly enables the identification of the follicule stimulating hormone receptor as the master sex-determining gene in the flatfish *Solea senegalensis*. Molecular Ecology Resources, 23(4):886-904. https://doi.org/10.1111/1755-0998.13750 (1/28)
2. Jiménez-Ruiz Claudio A, de la Herrán R, Robles F, Navajas-Pérez R, Cross I, Rebordinos L, and Ruiz-Rejón C. (2023). miR-430 microRNA Family in Fishes: Molecular Characterization and Evolution. Animals 13(15), 2399. https://doi.org/10.3390/ani13152399 (2/7)
3. Jiménez-Ruiz CA, Robles F, Navajas-Pérez R, Ruiz-Rejón C, de la Herrán R (AC). 2022. Characterization of the complete mitochondrial genome of the striped soldier shrimp, *Plesionika edwardsii* (Brandt, 1851) (Crustacea: Decapoda: Pandalidae), and comparison with other species of Caridea. Journal of Crustacean Biology, 42 (4). https://doi.org/10.1093/jcbiol/ruac055 (5/5)
4. Salih K., Xiaokai M., Xingtan Zhang, …, Ray Ming. 2022. Pistachio genomes provide insights into nut tree domestication and ZW sex chromosome evolution, Plant Communications. https://doi.org/10.1016/j.xplc.2022.100497 (16/36)
5. Labdelli A, De La Herrán R (AC), Arafeh R, Resentini F, Trainotti L, Halis Y, Adda A, Merah O. 2020. Genetic Variation in Damaged Populations of Pistacia atlantica Desf. *9*(11), 1541; *https://doi.org/10.3390/plants9111541*
6. Labdelli A, De La Herrán R (AC), Resentini F, Trainotti L, Tahirine M, Merah O. 2022. Evaluation of Genetic Variability among Three Pistacia Species Using Internal Transcribed Spacer 1 (ITS1) Marker. *Diversity 14(12), 1051; https://doi.org/10.3390/d14121051*

7. García-Zea JA, de la Herrán Moreno R, Robles F, Navajas-Pérez R, Ruiz Rejón C. 2019. Detection and variability analyses of CRISPR-like loci in the *H. pylori* genome. Peer J, 7:e6221.
8. Molina-Luzón MJ, Hermida M, Navajas.Pérez R., …, de la Herrán R. (AC). 2015. First haploid genetic map based on microsatellite markers in Senegalese Sole (*Solea senegalensis*, Kaup 1858). Marine Biotechnology, 17, 8-22 (9/9)
9. Rodríguez-Ramilo ST, De La Herrán R, Ruiz-Rejón C, …, Fernández J. 2014. Identification of Quantitative Trait Loci Associated with Resistance to Viral *Haemorrhagic Septicaemia* (VHS) in Turbot (*Scophthalmus maximus*): A Comparison Between Bacterium, Parasite and Virus Diseases. Marine Biotechnology, 16(3), 265-276 (2/11)
10. Molina-Luzón MJ, López JR, Navajas-Pérez R, Robles F, Ruiz-Rejón C, de la Herrán R. (AC) 2012. Validation and comparison of microsatellite markers derived from Senegalese sole (*Solea senegalensis*, Kaup) genomic and expressed sequence tags libraries. Molecular Ecology Resources, 12(5), 956-966 (6/6)

C.2. Congress, indicating the modality of their participation
1. R de la Herrán, G Barturen, D Robledo, … P Martínez y C Ruiz-Rejón. Base genética de la infertilidad en machos F1 de lenguado senegalés. Póster XLIV Congreso de la Sociedad Española de Genética. 8-11 julio 2025. Cartagena, Murcia
2. F Robles, L Torres, A Rosales-Ruiz, …R de la Herrán y C Ruiz-Rejón. Evaluación del metabarcoding de ADN ambiental (eDNA) para el monitoreo de la ictiofauna en un enclave protegido del Mar de Alborán. Póster XLIV Congreso de la Sociedad Española de Genética. 8-11 julio 2025. Cartagena, Murcia.
3. De la Herrán R, Pis Virgil S, …Ruiz Rejón C and Navas JI. Genome sequencing and preliminary analysis of the bivalve pasasitizing protozoan *Marteilia pararefringens*. Póster ISGA XV International Symposium on Genetics in Aquaculture. 11-17 may 2025. Cádiz, Spain
4. Ruiz Rejón C, Manzanares I, … Navas JI and de la Herrán R. Transcriptomic analysis of *Mytilus galloprovincialis* under infection by *Marteilia pararefringens*.: Póster ISGA XV International Symposium on Genetics in Aquaculture. 11-17 may 2025. Cádiz, Spain
5. De la Herrán R, Manzanares I, …P, Robledo D and Ruiz Rejón C. Defferential gene expression at different stages of gonadal development in male and female senegalese sole (*Solea senegalensis*). Póster 7th International Symposium on Genomics in Aquaculture. 22-24 May 2024 Thessaloniki, Grecia.
6. Robles F, Hermida M, …Ruiz Rejón C and de la Herrán R. Genetic diversity of *Plesionika edwardsii*: a shrimp species with economic interest in Alboran Sea región. Póster 7th International Symposium on Genomics in Aquaculture. 22-24 May 2024 Thessaloniki, Grecia.
7. Ruiz Rejón C, Baquero D, …Robledo D and de la Herrán R. Comparative analysis of gonads from wild and F1 cultivated adult males of senegaleses sole by scRNASeq. Póster 7th International Symposium on Genomics in Aquaculture. 22-24 May 2024 Thessaloniki, Grecia.
8. De la Herrán R, Hermida M, Rubiolo J.., Martínez P. A chromosome level genome assembly enables the identification of the follicle stimulating hormone receptor as the master sex determining gene in *Solea senegalensis*. Oral participation. XIV International Symposium on Genetics in Aquaculture (ISGA). 27 nov-2 dic, 2022. Puerto Varas (Chile).
9. Navas Triano JI, García Sánchez P, Jiménez Ruiz CA y de la Herrán Moreno R. Primeros análisis genómicos de *Marteilia* spp. infectando *Mytilus galloprovincialis* del río Piedras (Huelva). XVIII Congreso Nacional de Acuicultura. Cádiz, 21 a 24 de noviembre de 2022
10. Navajas-Pérez R, Robles F, De la Herrán R, …, Ruíz-Rejón C. Repetitive DNA sequences of Senegalese sole (*Solea senegalensis*) and its implications in chromosome structure. 6th International Symposium on Genomic in Aquaculture GIA2022. 4-6 may 2022. Granada (Spain). Organizer
11. Navajas-Pérez R, de la Herrán R, Hermida M, Robles F, Duncan N, Martinez P and Ruiz Rejón C. SOLGEN: genomic and sexual determination studies in sole (*Solea senegalensis*) through map integration. Oral participation. GIA2020. Granada (on line), 5-7 de may de 2021. Organizer

C.3. Research projects
As IP
1. 2024-2027. Enfoque ómico en el estudio de la marteiliosis y su aplicación la dinámica parásito-hospedador [PID2023-146403OB-I00]. Ministerio de Ciencia, Innovación y Universidades. Proyectos del Plan Estatal 2023 (36 months, 80.000€).

2. 2020-2023. Análisis genético de *Plesionika edwardsii* en poblaciones del Mar de Alborán (PLESIGEN) [B-BIO-678-UGR20]. Proyectos de I+D+I por equipos de investigación en el marco del Programa Operativo FEDER de Andalucía 2014-2020 (36 months, 25.000€)
3. 2010-2012. Utilización de herramientas genéticas en la mejora del cultivo del lenguado (*S. senagalensis*) [AGL2009-11872] Ministerio de Ciencia e Innovación (36 months, 96.800 €)
4. 2008-2013. Improvement of aquaculture production by the use of biotechnological tools (AQUAGENOMICS) Proyecto nº. 28502. [CSD2007-00002] Ministerio de Educación y Ciencia. PROGRAMA INGENIO CONSOLIDER (60 months, 200.810€)
As Co-IP
5. 2023-2026. Estudios genómicos en el lenguado senegalés para la mejora de su rendimiento reproductivo. Proyectos de Investigación Aplicada del Plan Propio financiados por el Programa Operativo FEDER 2021-2027.
6. 2015-2016. Red de Excelencia de Biotecnología en Acuicultura (Aquagenomics-Net) [AGL2014-53190-REDC]. Ministerio de Economía y Competitividad. ACCIONES DE DINAMIZACIÓN "REDES DE EXCELENCIA (24 months, 54.500€)
As research
7. 2020-2023. Characterization of marteiliosis of bivalve mollusks from the Andalusian coast (MARTEILIAND) Proyectos de I+D+i, en el marco del Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I +D +i y del Programa Estatal de I+D+i Orientada a los Retos de la Sociedad, del Plan Estatal de I+D+i 2017-2020. Ministerio de Ciencia, Innovación y Universidades (IP: JI Navas, 24 months, 70.000€)
8. 2019-2022. Desarrollo de un mapa de ligamiento diploide en el lenguado y caracterización de secuencias repetidas y genes con expresión diferencial entre sexos [RTI2018-096847-B-C22] Proyectos I+D+i Retos de investigación del Programa Estatal. Ministerio de Ciencias, Innovación y Universidades (IP: C. Ruiz-Rejón, 45 months, 121.000€)
9. 2008-2012. Variabilidad del cultivo de mejillón (*Mytilus galloprovincialis*) en Andalucía a partir de semilla producida en criadero [P09-CVI-4796] Junta de Andalucía, Proyectos de Investigación de Excelencia en Equipos de Investigación (IP: I. Martínez Pita, 60 months, 156.243€)
10. 2008-2012. Implicaciones y aplicaciones de la genética molecular en los esturiones (Familia Acipenseridae) [P07-CVI-03296] Junta de Andalucía, Proyectos de Investigación de Excelencia en Equipos de Investigación (IP: C. Ruiz-Rejón, 60 months, 458.000€)

C.4. Contracts, technological or transfer merits
Contracts
1. Análisis de la diversidad de peces mediante la metodología eDNA en el Mar de Alborán. 2024. Funding: CEI-MAR, IP: F. Robles, 11.000€
2. Development of molecular markers in anthozoans from the Alboran Sea for biodiversity, environmental and biotechnological studies. 2020. Funding: CEI-MAR, IP: F. Robles, 11.000€
3. Genetic analysis of caviar samples and determination of their species. 2015. Funding: Entidad Caspian Pearl SA. IP: R de la Herrán, 12.000€.
4. Botanical, historiographic and genetic study of *Myrtus communis* varieties in the Alhambra and Generalife. 2008-2009. Funding: Patronato de La Alhambra, IP: M Casares, 13500€.
5. Consultancy and assistance contract to carry out a genetic study of some critically endangered plant species in the eastern Sierras of Andalusia. 2005-2007. Funding: Empresa de Gestión Medioambiental S.A. (E.G.M.A.S.A.), IP: G Blanca, 40.600 €
6. Development of a sex identification test for sturgeon useful for caviar production. 2003-2005. Funding Company: Piscifactoría Sierra Nevada S.L., IP: M Ruiz, 66.272 €.
7. Pleurogene-Flatfish Genomics: Enhancing Commercial Culture of Atlantic Halibut and Senegal Sole. 2004-2007. Funding: Genoma España, IP: M. Ruiz-Rejón, 111.800€)
Patents and intellectual property
8. López JR, Sparagano OAE, Navas JI, De la Herran. Method of identification of fish pathogens: *Photobacterium damsela*, *Tenacibaculum sole*ae, *T. maritimum* and *Vibrio harveyii.* Application number: P200930440, Date: 06/11/2012, Entity: Junta de Andalucía
9. Navajas-Pérez R, de la Herrán R, Robles F, Ruiz-Rejón C, Sola Campoy PJ. Protection of the Vegetable Variety Pistacia x vigros. Application number: 2012/1925, Country: Spain, Entity: OTRI, University of Granada.