CURRICULUM VITAE (CVA)

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Part A. PERSONAL INFORMATION

First name	José Manuel		
Family name	Pérez Pérez	Birth date	1975
Gender	Male	URL Web:	
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Open Researcher and Contributor ID (ORCID)		0000-0003-2848-4919	

A.1. Current position

Position	Catedrático de Universidad		
Initial date	14/06/2019		
Institution	Universidad Miguel Hernández de Elche (UMH)		
Department/Center	Instituto de Bioingeniería, UMH (IB-UMH)		
Country	Spain	Phone num.	+34966658958
Key words	plant development, hormonal signaling, functional genomics		

A.2. Previous positions (research activity interruptions, art. 45.2.c)

Period	Position, Institution, Country
2019-2009	Profesor Titular, UMH, Spain
2009-2009	Profesor Contratado Doctor, UMH, Spain
2009-2006	Contratado postdoctoral "Juan de la Cierva", UMH & IBMCP CSIC-UPV, Spain
2006-2004	Contratado postdoctoral "Marie Curie", Utrecht University, The Netherlands
2003-2001	Ayudante de Universidad, UMH, Spain

A.3. Education

PhD, Licensed, Graduate	University, Country	Year
Doctor	UMH, Spain	2003
Licenciado en Biología	Universidad de Alicante, Spain	1997

Part B. CV SUMMARY

Career path. I was *Ayudante de Universidad* (2001-03), "Marie Curie" postdoctoral researcher at the Utrecht University (The Netherlands, 2004-06), "Juan de la Cierva" postdoctoral researcher (2006-09), and *Profesor Contratado Doctor* (2009) at the UMH. I was appointed as *Profesor Titular* in 2009 and I am *Catedrático de Universidad* since 2019.

Research summary. My research activity began in 1998. During my PhD and under the supervision of Profs. José Luis Micol and María Rosa Ponce at the IB-UMH, I carried out the positional cloning and functional characterization of two *ultracurvata* mutants of *Arabidopsis thaliana*, involved in brasinosteroid signaling and the regulation of auxin transport, respectively (Pérez-Pérez *et al*. 2004; Pérez-Pérez *et al*. 2002). I also contributed there to the genetic analysis of natural variation in leaf architecture (Pérez-Pérez *et al*. 2010; Juenger *et al*. 2005; Pérez-Pérez *et al*. 2002). Between 2004 and 2009 I did two postdoctoral stages. In the first one, at the laboratory of Prof. Ben Scheres (Utrecht University, The Netherlands), I contributed to determine the function of the RETINOBLASTOMA RELATED (RBR) protein in the specification of totipotent cells in the Arabidopsis root meristem (Perilli *et al*. 2013; Wildwater *et al*. 2005) and I used clonal analysis to determine the function of the APC/C complex during plant development (Pérez-Pérez *et al*. 2008; Serralbo *et al*. 2006). During my second postdoc in the laboratory of Prof. José Luis Micol (UMH), I contributed to the development of a phenotyping platform in Arabidopsis (Wilson-Sánchez *et al*. 2014; Pérez-Pérez *et al*. 2011) and to the cloning and functional characterization of genes involved in leaf development (Mateo-Bonmatí et al.,

2018; Muñoz-Nortes *et al*. 2017a; 2017b; Pérez-Pérez *et al*. 2013; Ferrández-Ayela *et al*. 2013; Esteve-Bruna *et al*. 2013; Pérez-Pérez *et al*. 2012; Horiguchi *et al*. 2011; Mollá-Morales *et al*. 2011; Pérez-Pérez *et al*. 2010).

Principal Investigator (PI). In January 2012, I started an independent research group at the IB-UMH aimed at the understanding of *de novo* plant organogenesis. In my laboratory, we are studying adventitious root formation using *Arabidopsis thaliana* and tomato as model systems. We are following a genetical genomics approach to determine the gene networks involved in organ regeneration from differentiated cells and to clarify the molecular basis of the signaling crosstalk between different plant hormones in this process. In collaboration with five agri-tech companies, we have begun to transfer our results to the optimization of vegetative propagation in plants of ornamental and agronomic interest. See my publications here.

JCR articles and impact (WoS). The CNEAI granted me four *sexenios de investigación* (1999-2022). I published 77 articles in journals appearing in JCR, one book chapter, and 155 communications to 77 congresses (34 national and 43 international). 71 of my publications (92.2%) are in journals at the first quartile (Q1) in the categories of *Plant Sciences*, *Genetics & Heredity*, *Biochemistry & Molecular Biology*, *Agronomy*, and *Multidisciplinary Sciences*. 35 of them belong to the first decile (D1). I am the main author in 51 (38 as a corresponding author and 13 as a first author). My publications have been cited 2,564 times (179 citations in 2024, 216 in 2023, 243 in 2022, 214 in 2021, and 182 in 2020; Web of Science, 26/11/2024). My h-index is 27.

Training capacity. I supervised 15 Master's Theses, five End of Career, and 15 End of Degree Assignments. I also supervised eight postdocs, 11 PhD students (three ongoing and eight already obtained their Doctoral thesis, two of which obtained the Extraordinary Doctorate Award), and eight lab technicians. This list includes 25 women and 20 men. My Ph.D. students have reached the following professional categories: two high school teachers, six researchers in private companies, and one as a research technician in the faculty.

Other responsibilities. I evaluated projects for the National Agency for Evaluation and Prospective (ANEP; >2015) of Spain, the Research Foundation Flanders (FWO) of Netherlands and Belgium (2016, 2018-20), the National Science Center (NSC) of Poland (2018), the Israeli Government (2019, 2023), the Biotechnology and Biological Science Research Council (BBSRC) of UK (2022), and the Institute of Science and Technology of Austria (2022). I've been the Coordinator of the Doctoral Program of Bioengineering of the UMH (2017-19) and a member of the *Comisión A5 de Acreditación de Biología Celular y Molecular* del Programa ACADEMIA de la ANECA (2016-17). I am Associate Editor of *Frontiers in Plant Science* (>2014), *Plants* (>2020), and *Scientific Reports* (>2022).

Part C. RELEVANT MERITS

C.1. Publications *(60 since 2012; see http://arolab.edu.umh.es/publications/ or Pubmed)*

1. Luque A, Blanes-Mira C, Caballero L, Martínez-Melgarejo PA, Nicolás-Albujer M, Pérez-Alfocea F, Fernández-Ballester G, Pérez-Pérez JM (2024). Identification of novel inhibitors of plant GH3 IAA-amido synthetases through mo-lecular docking studies. *Physiologia Plantarum* **176**, e14612. **IF: 5.4 (D1)**.
2. Caballero L, Pasternak T, Riyazuddin R, Pérez-Pérez JM (2024). Connecting high-resolution 3D chromatin maps with cell division and cell differentiation at the root apical meristem. *Plant Cell Reports* **43**, 232. **IF: 5.3 (Q1)**.
3. Pasternak T, Palme K, Pérez-Pérez JM (2023). Role of reactive oxygen species in the modulation of auxin flux and root development in *Arabidopsis thaliana*. *The Plant Journal* **114**, 83. **IF: 7.2 (D1)**.
4. Larriba E, Sánchez-García AB, Justamante MS, Martínez-Andújar C, Albacete A, Pérez-Pérez JM (2021). Dynamic hormone gradients regulate wound-induced de novo organ formation in tomato hypocotyl explants. *International Journal of Molecular Sciences* **22**, 11843. **IF: 6.2 (Q1)**.
5. Larriba E, Sánchez-García AB, Martínez-Andújar C, Albacete A, Pérez-Pérez JM (2021). Tissue-specific metabolic reprogramming during wound-induced de novo organ formation in tomato hypocotyl explants. *International Journal of Molecular Sciences* **22**, 10112. **IF: 6.2 (Q1)**.

6. Alaguero-Cordovilla A, Sánchez-García AB, Ibáñez S, Albacete A, Cano A, Acosta M, Pérez-Pérez JM (2021). An auxin-mediated regulatory framework for wound-induced adventitious root formation in tomato shoot explants. *Plant,Cell and Environment* **44**, 1642. **IF: 7.9 (D1)**.
7. Alaguero-Cordovilla A, Gran-Gómez FJ, Jadczak P, Mhimdi M, Ibáñez S, Bres C, Just D, Rothan C, Pérez-Pérez JM (2020). A quick protocol for the identification and characterization of early growth mutants in tomato. *Plant Science* **301**, 110673 **IF: 4.7 (Q1)**.
8. Ibáñez S, Ruiz-Cano H, Fernández MA, Sánchez-García AB, Villanova J, Micol JL, Pérez-Pérez JM (2019). A network-guided genetic approach to identify novel regulators of adventitious root formation in *Arabidopsis thaliana*. *Frontiers in Plant Science* **10**, 461. **IF: 4.4 (D1)**.
9. Justamante MS, Ibáñez S, Peidró A, Pérez-Pérez JM (2019). A genome-wide association study identifies new loci involved in wound-induced lateral root formation in *Arabidopsis thaliana*. *Frontiers in Plant Science* **10**, 311. **IF: 4.4 (D1)**.
10. Bustillo-Avendaño E, Ibáñez S, Sanz O, Barros JAS, Gude I, Perianez-Rodriguez J, Micol JL, del Pozo JC, Moreno-Risueño MA, Pérez-Pérez JM (2018). Regulation of hormonal control, cell reprograming and patterning during *de novo* root organogenesis. *Plant Physiology* **176**, 1709-1727. **IF: 6.5 (D1)**.

C.2. Congress

Since 2012, I have contributed with 79 communications (19 of them as invited conferences, some of which are listed below) to 36 congresses (19 international and 17 national).

1. Justamante MS, Mhimdi M, Albacete A, Blanca J, Cañizares J, Pérez-Pérez JM (2023). Exploring natural variation to identify new regulators of tissue regeneration in tomato. XVI Simposio de Fitohormonas de la Sociedad Española de Biología de Plantas, Salamanca, Spain. Invited speaker.
2. Larriba E, Sánchez-García AB, Albacete A, Rothan C, Pérez-Pérez JM (2021). Tissue reprogramming during de novo organogenesis in tomato hypocotyl explants. Virtual Plant Regeneration Workshop organized by Hebrew University, Israel and RIKEN, Japan. Invited speaker.
3. Alaguero-Cordovilla A, Ibáñez S, Sánchez-García AB, Cano A, Acosta M, Pérez-Pérez JM (2019). Regulation of hormonal control, cell reprogramming, and patterning during de novo root organogenesis. 3rd International Conference on Plant Cells & Tissues In Vitro, Vienna, Austria. Invited speaker.
4. Justamante J, Villanova A, Cano EA, Cano A, Acosta M, Pérez-Pérez JM (2019). Integration of phenotypic, metabolomic and genetic data to identify novel regulators of adventitious root development in carnation. International Symposium on Plant Developmental Biology and Molecular Breeding of Tree Species. Beijing, China. Invited speaker.

C.3. Research projects

Since 2012, I have been PI in 22 projects (one European project, eight national projects, 16 regional projects, and seven infrastructure grants). I also participated as an investigator in other three projects (one regional project and two infrastructure grants) led by Prof. J.L. Micol (IB-UMH).

1. Functional analysis of LSD1-like complexes during de novo root regeneration (CIAPOS/2023/138). Conselleria d'Educació, Cultura, Universitats i Ocupació, Generalitat Valenciana. IP: José Manuel Pérez Pérez (15/10/2024 - 14/10/2026).
2. Estudios de asociación del genoma completo de la arquitectura del sistema radicular en tomate asociados con el uso eficiente de agua y nutrientes (TED2021-132256B-C22). Ministerio de Ciencia e Innovación. PI: José Manuel Pérez Pérez, IB-UMH (01/12/2022 - 30/05/2024).
3. Servicio de cultivo in vitro y caracterización genética de plantas (INVEST/2022/247). Conselleria d'Innovació, Universitats, Ciència i Societat Digital, Generalitat Valenciana. PI: José Manuel Pérez Pérez, IB-UMH (15/10/2022 - 15/10/2024).
4. Esclareciendo la función del complejo LSD1 durante la formación de raíces adventicias (PID2021-126840OB-I00). Ministerio de Ciencia e Innovación. PI: José Manuel Pérez Pérez, IB-UMH (01/09/2022 - 31/08/2025).

5. Transferencia de caracteres ancestrales de la raíz al cultivo de tomate para mejorar el uso eficiente de agua y nutrientes (AGROALNEXT/2022/036). Conselleria d'Innovació, Universitats, Ciència i Societat Digital, Generalitat Valenciana. PI: José Manuel Pérez Pérez, IB-UMH (22/04/2022 - 31/12/2025).
6. Reprogramación genética de la pluripotencia celular en tejidos vegetales diferenciados (GRISOLIAP/2019/098). Conselleria d'Innovació, Universitats, Ciéncia i Societat Digital, Generalitat Valenciana. PI: José Manuel Pérez Pérez, IB-UMH (16/09/2019 - 15/09/2022).
7. Caracterización de nuevos reguladores de la formación de raíces adventicias: función de la demetilasa de histonas LSD1 en la regulación de la respuesta a las auxinas (RTI2018-096505-B-I00). Ministerio de Ciencia, Innovación y Universidades. PI: José Manuel Pérez Pérez, IB-UMH (01/01/2019 - 31/08/2022).
8. Conservación funcional de los genes AINTEGUMENTA-LIKE (AIL) de tomate durante la formación de raíces adventicias (ACIF/2018/220). Conselleria d'Educació, Investigació, Cultura i Sport, Generalitat Valenciana. PI: José Manuel Pérez Pérez, IB-UMH (01/09/2018 - 31/08/2021).
9. Unidad de microscopía de hoja de luz para el estudio de la formación de raíces adventicias en tomate y clavel (IDIFEDER/2018/016). Conselleria d'Educació, Generalitat Valenciana. PI: José Manuel Pérez Pérez, IB-UMH (01/09/2018 - 31/12/2020).

C.4. Contracts, technological or transfer merits

Since 2012, I have been PI in 12 research contracts with five agri-tech companies, one University and one Research Center.

1. Desarrollo de un protocolo de detección de hongos bioestimulantes en raíces y suelos agrícolas (ATLANTICA1.24I). Atlántica Agrícola S.A. PI: José Manuel Pérez Pérez (12/09/2024 - 11/09/2026).
2. Reprogramación genética de cultivos vegetales mediante la adición de bioestimulantes radiculares (ATLANTICA1.23I). Atlántica Agrícola S.A. PI: José Manuel Pérez Pérez, IB-UMH (19/01/2024 - 18/05/2025).
3. Análisis transcriptómico para determinar el efecto fisiológico de dos tratamientos en cinco líneas de tomate (CEBAS1.21T). CEBAS-CSIC. PI: José Manuel Pérez Pérez, IB-UMH (13/12/2021 - 12/12/2022).
4. Análisis transcriptómico para determinar el efecto fisiológico de la adicción de fertilizantes naturales sobre el crecimiento radicular de maíz (ATLANTICA2.21T, ATLANTICA1.22D). Atlántica Agrícola S.A. PI: José Manuel Pérez Pérez, IB-UMH (02/07/2021 - 01/07/2023).
5. Análisis transcriptómico para determinar el efecto fisiológico de la adición de fertilizantes naturales sobre el crecimiento radicular en tomate (ATLANTICA3.20T). Atlántica Agrícola S.A. PI: José Manuel Pérez Pérez, IB-UMH (10/11/2020 - 09/08/2021).
6. Análisis de la expresión génica durante el crecimiento temprano del sistema radicular de maíz (UEX1.19I, UEX1.20D, UEX1.21D). Universidad de Extremadura. PI: José Manuel Pérez Pérez, IB-UMH (09/02/2020 - 30/10/2021).
7. Micropropagación de plantas de ágave y de dos portainjertos de frutales de hueso (VIVCANOS1.14I, VIVCANOS2.16D). Viveros Canós S.L. PI: José Manuel Pérez Pérez, IB-UMH (23/02/2016 - 22/02/2017).
8. Saneamiento de *Ficus carica* y detección y cuantificación de patógenos en el género Ágave y Yucca (VIVCANOS1.16T). Viveros Canós S.L. PI: José Manuel Pérez Pérez, IB-UMH (26/09/2014 - 25/09/2016).
9. CARNOMICS: Design and evaluation of molecular breeding tools for cultivated carnation (*Dianthus caryophyllus* L.) (BARBERET1.12CC). Barberet & Blanc, S.A. PI: José Manuel Pérez Pérez, IB-UMH (23/07/2012 - 22/07/2015).