



**Part A. PERSONAL INFORMATION**

**CV date** 24/12/2020

First and Family name	José Manuel Pérez Pérez		
Social Security, Passport, ID number	21.665.482-B	Age	45
Researcher numbers	Researcher ID	B-4247-2011	
	Orcid code	0000-0003-2848-4919	

**A.1. Current position**

Name of University/Institution	Universidad Miguel Hernández de Elche		
Department	Instituto de Bioingeniería		
Address and Country	Avda. de la Universidad s/n		
Phone number	966658958	E-mail	<a href="mailto:imperez@umh.es">imperez@umh.es</a>
Current position	Professor of Genetics	From	14/06/2019
Espec. cód. UNESCO	2409.91, 2415.02, 2417.14		
Key words	plant development, hormonal signalling, functional genomics		

**A.2. Education**

PhD	University	Year
Genetics	Universidad Miguel Hernández de Elche	2003

**A.3. Quality Indicators of Scientific Research**

- Positive evaluation of my research activities in the periods 1999-2004, 2005-2010 and 2011-2016 (3 *sexenios*).
- Four Doctoral Theses directed or co-directed (2011, 2013, 2017, 2020) and four others in progress.
- Since 2000 I published [51 articles in journals appearing in JCR](#), 1 book chapter and 130 communications to 70 congresses (28 national and 42 international).
- 45 of my publications are in journals at the first quartile (Q1) in the categories of Plant Sciences, Multidisciplinary Sciences, Genetics & Heredity, and Cell Biology. 26 of them belong to the first decile (D1). I am the main authorship in 33 (20 as a corresponding author and 13 as a first author).
- My publications have been cited in Web of Science (WoS) 1607 times (161 citations in 2020, 128 in 2019, 144 in 2018, 95 in 2017, and 101 in 2016).
- My *h*-index (WoS) is 22.

**Part B. CV SUMMARY**

Since June 2019 I am Full Professor of Genetics at the Universidad Miguel Hernández de Elche (UMH), and I started my independent research in January 2012 for the understanding of *de novo* plant organogenesis. In my laboratory ([arolab.edu.umh.es](http://arolab.edu.umh.es)), 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 signalling crosstalk between different plant hormones in this process. In the last 6 years, I have obtained 876,120 € of public funding as a Principal Investigator and an additional 174,470 € from research contracts. In collaboration with two breeding companies, we initiated the transfer of our results to the optimization of vegetative propagation in ornamental species, such as carnation (Justamante *et al.* 2019; Sánchez-García *et al.* 2018; Cano *et al.* 2018; Villanova *et al.* 2017; Villacorta-Martín *et al.* 2015; Birlanga *et al.* 2015; Agulló-Antón *et al.* 2014; Chacón *et al.* 2014; Agulló-Antón *et al.* 2013).

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 stay 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).

During my PhD and under the supervision of professors José Luis Micol and María Rosa Ponce, I carried out the positional cloning and functional characterization of two *ultracurvata* mutants of *Arabidopsis thaliana*, involved in brassinosteroid signalling and in the regulation of auxin transport, respectively (Pérez-Pérez *et al.* 2004; Pérez-Pérez *et al.* 2002). I also contributed to the genetic analysis of natural variation in leaf architecture (Juenger *et al.* 2005; Pérez-Pérez *et al.* 2002).

## Part C. RELEVANT MERITS

### C.1. Publications

1. Mhimdi M, Pérez-Pérez JM (2020). Understanding of adventitious root formation: what can we learn from comparative genetics? *Frontiers in Plant Science* **11**, 582020. **IF: 4.106 (D1)**
2. Alaguero-Cordovilla A, Gran-Gómez FJ, Jadczyk 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: 3.785 (Q1)**
3. 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: 4.106 (D1)**
4. Druège U, Pérez-Pérez JM, Hilo A, Klotek Y, Acosta M, Shahinnia F, Zerche S, Franken P, Hajirezaei MR (2018). Molecular and physiological control of adventitious rooting in cuttings: phytohormone action meets resource allocation. *Annals of Botany* **123**, 929. **IF: 3.454 (Q1)**
5. Mateo-Bonmatí E, Esteve-Bruna D, Juan-Vicente L, Nadi R, Candela H, Lozano FM, Ponce MR, Pérez-Pérez JM, Micol JL (2018). *INCURVATA11* and *CUPULIFORMIS2* are redundant genes that encode epigenetic machinery components in *Arabidopsis*. *Plant Cell* **30**, 1596-1616. **IF: 8.631 (D1)**
6. Cano A, Sánchez-García AB, Albacete A, González-Bayón R, Justamante MS, Ibáñez S, Acosta M, Pérez-Pérez JM (2018). Enhanced conjugation of auxin by GH3 enzymes leads to poor adventitious rooting in carnation stem cuttings. *Frontiers in Plant Science* **9**, 566. **IF: 4.106 (D1)**
7. Bustillo-Avenidaño 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 reprogramming and patterning during *de novo* root organogenesis. *Plant Physiology* **176**, 1709-1727. **IF: 6.305 (D1)**
8. Lup SD, Tian X, Xu J, Pérez-Pérez JM (2016). Wound signaling of regenerative cell reprogramming. *Plant Science* **250**, 178-187. **IF: 3.437 (Q1)**
9. Zhang Y, Zheng L, Hong JH, Gong X, Zhou C, Pérez-Pérez JM, Xu J (2016). *TOPOISOMERASE1α* acts through two distinct mechanisms to regulate stele and columella stem cell maintenance in the *Arabidopsis* root. *Plant Physiology* **171**, 483. **IF: 6.456 (D1)**
10. Villacorta-Martín, C., Sánchez-García, A.B., Villanova, J., Cano, A., van de Rhee, M., de Haan, J., Acosta, M., Passarinho, P., Pérez-Pérez, J.M. (2015) Gene expression profiling during adventitious root formation in carnation stem cuttings. *BMC Genomics* **16**, 789. **IF: 3.867 (Q1)**

### C.2. Research projects and grants

Since 1999, I participated in 25 research projects (3 European projects, 9 National projects, 8 regional projects and 5 infrastructure grants). From 2012 onwards, I have been PI in 9 of these projects (1 European project, 3 National projects, 3 regional projects and 2 infrastructure grants).

1. Project title: Characterization of new regulators of adventitious root formation: function of histone demethylase LSD1 in spatial regulation of auxin responses (RTI2018-096505-B-I00)



- Funding entity: Ministerio de Ciencia, Innovación y Universidades  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/01/2019 - 31/12/2021 Funding received: **157.300 €**
2. Project title: Molecular signatures of plant growth: a multidisciplinary approach (PROMETEO/2019/117)  
Funding entity: Conselleria d'Educació, Generalitat Valenciana  
Principal investigator: José Luis Micol Molina  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/01/2019 - 31/12/2022 Funding received: **216.660 €**
3. Project title: Mapping-by-sequencing (EQC2018-005181-P)  
Funding entity: Ministerio de Ciencia, Innovación y Universidades  
Principal investigator: José Luis Micol Molina  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/09/2018 - 31/12/2019 Funding received: **456.300 €**
4. Project title: Light sheet microscopy equipment for the comparative genomics of adventitious root formation (IDIFEDER/2018/016)  
Funding entity: Conselleria d'Educació, Generalitat Valenciana  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/09/2018 - 31/12/2020 Funding received: **375.000 €**
5. Project title: Comparative genomics of adventitious root formation in tomato and carnation (BIO2015-64255-R)  
Funding entity: Ministerio de Economía y Competitividad  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/01/2016 - 31/12/2018 Funding received: **157.300 €**
6. Project title: Plant tissue culture facility  
Funding entity: Fondos FEDER de la Generalitat Valenciana  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 21/01/2013 Funding received: **43.076 €**
7. Project title: Hormonal and genetic requirements of adventitious root formation: a multidisciplinary approach (AGL2012-33610)  
Funding entity: Ministerio de Economía y Competitividad  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/01/2013 - 31/12/2015 Funding received: **70.200 €**
8. Project title: Empowering root-targeted strategies to minimize abiotic stress impacts on horticultural crops (ROOTOPOWER; FP7-KBBE-2011-289365)  
Funding entity: European Commission Cooperation Project  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 01/01/2012 - 31/12/2015 Funding received: **59.999 €**

### C.3. Contracts

1. Project title: Root transcriptomics during early growth in maize  
Funding entity/company: Universidad de Extremadura.  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 09/02/2020 - 31/12/2020 Funding received: **12.425 €**
2. Project title: Validation of a bioassay to study the effect on the germination and rooting of natural fertilizers  
Funding entity/company: Atlántica Agrícola, S.A.  
Principal investigator: José Manuel Pérez Pérez

- Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 19/02/2019 - 30/11/2020 Funding received: **12.030 €**
3. Project title: Propagation of *Ficus carica* and pathogen detection in Agave and Yucca species  
Funding entity/company: Viverós Canós, S.L.  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 23/02/2016 - 22/02/2017 Funding received: **12.100 €**
4. Project title: Micropropagation of agave and two stone fruit rootstocks  
Funding entity/company: Viverós Canós, S.L.  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 26/09/2014 - 25/09/2016 Funding received: **13.870 €**
5. Project title: Design and evaluation of molecular breeding tools for carnation (CIIP-20121003)  
Funding entity/company: Barberet & Blanc, S.A.  
Principal investigator: José Manuel Pérez Pérez  
Affiliation: Instituto de Bioingeniería, Universidad Miguel Hernández  
Duration: 23/07/2012 - 22/07/2015 Funding received: **162.305 €**

#### C.4. Patents

Not applicable

#### C.5. Seminars and conferences

- I've been invited to give lectures about my research 15 times (Utrecht, Elche, Colonia, Barcelona, Valencia, Bergschenhoek, Tokyo, Jülich, Granada, Murcia, Weimar, Toledo, Madrid, Beijing, and Viena)

#### C.6. Direction of scientific works

- I supervised the research work of nine students of the "Master in Bioengineering" and "Master in Biotechnology and Bioengineering" of the Universidad Miguel Hernández de Elche (2010-11 to 2017-18)
- I supervised the Final Degree Projects of two students of Agricultural Engineering (2011-12 and 2012-13) and twelve of the Degree in Biotechnology of the Universidad Miguel Hernández de Elche (2013-14 to 2019-20)

#### C.7. Participation in evaluation tasks

- In 2015, 2017-2019 I evaluated projects for the National Agency for Evaluation and Prospective (ANEP) in the Area of Biomedicine and Fundamental Biology and Systems, respectively
- In 2016, 2018-2020 I evaluated Plant Biology projects for the Research Foundation Flanders (FWO) of The Netherlands and Belgium, for the Israeli Government in 2019, and for the National Science Center (NSC) of Poland
- In 2015 and 2016 I have evaluated R&D projects as a Technical Expert for certification by MINECO in Agriculture
- Since 2014, I am Associate Editor of [Frontiers in Plant Science](#)
- Since 2020, I am Associate Editor of [Plants](#)