



Part A. PERSONAL INFORMATION		CV date	14/01/2022
First name	Daniel		
Family name	Pérez Mendoza		
Gender (*)	Male	Birth date (13/08/1976)	
Social Security, Passport, ID number			
e-mail	dpmendoza@eez.csic.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-9918-5671		

(*) Mandatory

A.1. Current position

Position	Científico Titular		
Initial date	01/12/2021		
Institution	Consejo Superior de Investigaciones Científicas (CSIC)		
Department/Center	Soil Microbiology & Symbiotic Systems	Estación Experimental del Zaidín (EEZ)	
Country	Spain	Teleph. number	
Key words	c-di-GMP, Biopolymers, EPS, Biofilm, Plant-bacteria interactions		

A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
09/2019 - 11/2021 (26 months)	Lecture (Profesor Ayudante Doctor) / UGR / Spain
01/2019 - 08/2019 (8 months)	Postdoc/ EEZ-CSIC / Spain
09/2018 - 12/2018 (3 months)	Research stay/ Technical University of Munich (TUM) / Germany
07/2016 - 08/2018 (8 months)	Postdoc/ EEZ-CSIC / Spain
07/2015 - 06/2016 (12 months)	Research stay / University of Kassel / Germany
06/2009 - 06/2015 (72 months)	Postdoc/ EEZ-CSIC / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	Universidad de Granada/Spain	2004
Licensed in Biology	Universidad de Granada/Spain	1999

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

I had my first contact with research in 1997 when I obtained a scholarship from the Ministry of Education and Sciences to work part-time on a project (1 Q1 paper) during the last three years of my undergraduate biology degree (1994-99, Mark A, Highest 10%). After graduate I was awarded with a PhD fellowship from the Spanish Ministry of Science (FPI, 2000-2004) to conduct my PhD at the EEZ-CSIC. At the group led by Prof. Sanjuán I studied the molecular processes involved in the bacterial conjugation of symbiotic elements in rhizobia (7 articles, 4 Q1). Jointly I obtained my research sufficiency diploma at the UGR (Mark: A). During the accomplishment of the PhD I was also involved in different research grants related to the interaction rhizobia-legume and in 2004 I was awarded with a fellowship (Postgraduate-I3P, CSIC) to work in collaboration with a fertiliser agriculture company (NBT Biotechnics) to assess the efficiency of rhizobial inoculants.

After the successful accomplishment of my PhD (*Summa Cum Laude*, October 2004, **Extraordinary Doctorate Award**), I was awarded with a postdoctoral fellowship (2005-07, IFIMAV) to continue my studies with the rhizobial relaxases at the University of Cantabria. At Prof. de la Cruz lab, I characterised for the first time the



relaxase of a symbiotic plasmid. Additionally, I started a new project (**FP6-LIFESCIHEALTH, 1.795.000€**) to identify chromosomal bacterial genes involved in TGH (2 first author Q1 articles).

In 2007 I was awarded with the prestigious **EMBO long-term fellowship** (2 years) to continue my training in the molecular and genetic processes involved in the phytopathogenesis mediated by Erwinias (*Pectobacterium*), supervised by Prof. George Salmond at the **University of Cambridge (UK)** (2 first author articles and 1 book chapter).

After this second postdoctoral stage I returned to the group led by Prof. Juan Sanjuán (EEZ-CSIC) thanks to obtaining a Doctor return contract (**JAE-DOC, CSIC**), where I established a completely novel line of research in order to study the role of the **Second Messenger c-di-GMP in the Plant-bacteria Interactions**, with both beneficial and pathogenic bacteria. This new research has been strongly supported by different research grants (Junta de Andalucía 2010 and National Grants 2011, 2014 y 2017, > **1.200.000€**), first author publications in prestigious scientific journals including **PNAS**, publications as corresponding author and fruitful national and international collaborations. To the same extent, it is providing very promising results in translational research as evidence the **2 published patents** in hyperproduction of **bacterial biopolymers**. The research community of this field have attested my value contributions awarding me with the prize **Antonio Palomares obtained in 2015**. AP awards young researchers with outstanding contributions to the research field: beneficial plant-bacteria interactions.

In 2015 I have led my first project as PI entitled: '**Novel biopolymers activated by c-di-GMP in bacteria**', carried out at the Univ. of Kassel (Germany) and the EEZ and supported by **Marie Curie Mobility Action** grant (JA and the FP7-EU, 153.311€). This project was continued thanks to a German Government fellowship (DAAD, 3 months) for another research stay at prestigious **Technical University of Munich (TUM)**.

In September 2019 I became a **Lecture at the Microbiology department at University of Granada** (Profesor Ayudante Doctor), teaching different subjects at pre- and postgraduate level (> 480 hours) in different degrees belonging to biomedical sciences. Likewise, I have **supervised postgraduate and master dissertations as well as 2 PhD**. I have been recognised as '**Profesor Contratado Doctor**' by the ANECA and I own the **certification I3**. I am a membership of different international committees use to act as reviewer for different journals as well as reviewer of research grants of different funding bodies and I am currently an **editor of Frontiers in Microbiology**.

Since November 2021, I belong to the permanent staff of CSIC (**Científico Titular**) working in the Department of microbiology and symbiotic systems of the Estación Experimental del Zaidín research centre (EEZ) integrated into the "Plant-Bacteria Interactions" research group (Bio-180).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- Total: **36**
- Research articles belonging to **SCI: 28** (4 D1, 17 Q1, 3 Q2, 3 Q3, 1 Q4)
- Principal author (First/last) in articles belonging to **SCI: 13** (2 D1 / 10 Q1 / 1Q2)
- Book chapters: **6**
- H index: **18** (GS) **15** (WoS)
- Cites: WoS (Total **619**; 417 without self-citation); GS (Total **911**)
- Average citations per document (WoS): 20.0
- Average citations per year in the last 5 years (WoS): 62

SCI Research articles in the last 10 years:

1) Sampedro, I., Pérez-Mendoza, D., Toral, L., Palacios, E., Arriagada, C., Llamas, I. Effects of Halophyte Root Exudates and Their Components on Chemotaxis, Biofilm Formation and Colonization of the Halophilic Bacterium Halomonas Anticariensis FP35(T). *Microorganisms* 2020, **8** (4) 575 (2020). **Category: Microbiology- SCIE (IF: 4,128; 52/136; Q2)**, Cites (WoS): 2

2) Pérez-Mendoza, D., Felipe, A., Ferreira, M-D., Sanjuán, J. and Gallegos, M.T. AmrZ and FleQ Co-regulate Cellulose Production in *Pseudomonas syringae* pv. Tomato DC3000. *Frontiers in Microbiology* 10 (746): 1-16 (2019). **Category: Microbiology- SCIE (IF: 4,259; 32/133; Q1)**, Cites (WoS): 4

3) Baena, I., Pérez-Mendoza, D., Sauviac, L., Francesch, K., Martín, M., Rivilla, R., Bonilla, I., Bruand, C., Sanjuán, J. and Lloret, J. c-di-GMP activation of mixed-linkage β -glucan synthesis is regulated by a partner-switching system in *Sinorhizobium meliloti*. *Environmental Microbiology* 21(9): 3379-3392 (2019). **Category: Microbiology - SCIE (IF: 5.147; 27/133; Q1)**, Cites (WoS): 6

4) Pérez-Mendoza, D.*, Bertinetti, D., Gallegos, MT; Lorenz, R., F.W. Herberg and Sanjuán, J. A novel c-di-GMP binding domain is involved in the activation of mixed-linkage β -glucan in *Sinorhizobium meliloti*. *Scientific Reports* 7(1):8997(2017)***Corresponding Author. Category: Multidisciplinary Sciences (IF: 4.122; 12/64; Q1)**, Cites (WoS): 9



- 5) Pérez-Mendoza, D & Sanjuán, J. Exploiting the commons: cyclic diguanylate regulation of bacterial exopolysaccharide production. *Current Opinion in Microbiology* 30: 36-43 (2016). **Category: Microbiology - SCIE (IF: 6.234; 15/123; Q1)**. Cites (WoS): 23
- 6) Prada-Ramírez, H.A*, Pérez-Mendoza, D*. Felipe, A., Martínez-Granero, F., Rivilla, R., Sanjuán, J. and Gallegos, M.T. AmrZ regulates cellulose production in *Pseudomonas syringae* pv. tomato DC3000. *Molecular Microbiology*, 99, 960-977 (2016). ***Equal contribution**. **Category: Microbiology - SCIE (IF: 3.898; 28/125; Q1)**, Cites (WoS): 22
- 7) Romero-Jiménez, L., Rodríguez-Carbonel, D. Gallegos, MT, Sanjuan, J & Pérez-Mendoza, D*. A new family of Tn7 transposons to increase the intracellular levels of the second in Gram-negative bacteria. *BMC microbiology* 15, 190-200 (2015). ***Autor de correspondencia**. **Category: Microbiology - SCIE (IF: 2.581; 58/123; Q2)**, Cites (WoS): 5
- 8) Aragon, I.M., Pérez-Mendoza, D., Moscoso, JA., Faure, E., Guery, B., Gallegos, M.T., Filloux, A., & Ramos, C. The diguanylate cyclase DgcP is involved in plant and human *Pseudomonas* spp. infections. *Environmental Microbiology* 17, 4332-4351(2015). **Category: Microbiology - SCIE (IF: 5.932; 16/123; Q1)**, Cites (WoS): 12
- 9) Pérez-Mendoza, D., M.A. Rodríguez-Carvajal, L. Romero-Jiménez, G.A. Farias, J. Lloret, M.T. Gallegos & J. Sanjuán, Novel mixed-linkage beta-glucan activated by c-di-GMP in *Sinorhizobium meliloti*. *Proc Natl Acad Sci USA* 112, 757-765 (2015). **Category: Multidisciplinary Sciences (IF: 9.423; 4/66; D1)**, Cites (WoS): 44
- 10) Pérez-Mendoza, D., I.M. Aragón, H.A. Prada-Ramírez, L. Romero-Jiménez, C. Ramos, M.T. Gallegos & J. Sanjuán, Responses to Elevated c-di-GMP Levels in Mutualistic and Pathogenic Plant-Interacting Bacteria. *PLoS One* 9, e91645. (2014). **Category: Multidisciplinary Sciences (IF: 3.234; 9/57; Q1)**, Cites (WoS): 41
- 11) Aragon, I.M., D. Perez-Mendoza, M.T. Gallegos & C. Ramos, The c-di-GMP phosphodiesterase BifA is involved in the virulence of bacteria from the *Pseudomonas syringae* complex. *Molecular Plant Pathology* 16,604-615. (2014). **Category: Plant Sciences (IF: 4.795; 17/199; D1)**, Cites (WoS): 19
- 12) Siles, J.A., D. Pérez-Mendoza, J.A. Ibáñez, J.M. Scervino, J.A. Ocampo, I. García-Romera & I. Sampedro, Assessing the impact of biotransformed dry olive residue application to soil: Effects on enzyme activities and fungal community. *International Biodeterioration & Biodegradation* 89, 15-22. (2014). **Category: Biotechnology & Applied Microbiology - scie (IF: 2.131; 81/163; Q2)**, Cites (WoS): 16
- 13) Siles, J.A., T. Cajthaml, P. Hernández, D. Pérez-Mendoza, I. García-Romera & I. Sampedro, Shifts in Soil Chemical Properties and Bacterial Communities Responding to Biotransformed Dry Olive Residue Used as Organic Amendment. *Microbial Ecology*, 70: 231-243 (2014). **Category: Marine & Freshwater Biology (IF: 2.973; 10/103; D1)**, Cites (WoS): 9
- 14) Giusti,M.L., Pistorio,M., Lozano,M.J., Tejerizo,G.A., Salas,M.E., Martini,M.C., Lopez,J.L., Draghi,W.O., Del Papa,M.F., Pérez-Mendoza,D., Sanjuan,J.& Lagares,A. Genetic and functional characterization of a yet-unclassified rhizobial Dtr (DNA-transfer-and-replication) region from a ubiquitous plasmid conjugal system present in *Sinorhizobium meliloti*, in *Sinorhizobium medicae*, and in other nonrhizobial Gram-negative bacteria. *Plasmid* 67, 199-210 (2012). **Category: Genetics & Heredity (IF: 1.516; 121/157; Q4)**, Cites (WoS): 16
- 15) Pérez-Mendoza, D., Coulthurst, S. J., Sanjuán, J. & Salmond, G. P. C. N-Acetylglucosamine-dependent biofilm formation in *Pectobacterium atrosepticum* is cryptic and activated by elevated c-di-GMP levels. *Microbiology* 157, 3340-3348 (2011). **Category: Microbiology - SCIE (IF: 3.061; 27/126; Q1)**, Cites (WoS): 34
- 16) Pérez-Mendoza, D. Coulthurst,S.J., Humphris,S., Campbell,E., Welch,M., Toth,I.K. & Salmond,G.P. A multi-repeat adhesin of the phytopathogen, *Pectobacterium atrosepticum*, is secreted by a Type I pathway and is subject to complex regulation involving a non-canonical diguanylate cyclase. *Molecular Microbiology*. 82, 719-733 (2011). **Category: Microbiology - SCIE (IF: 5.010; 19/112; Q1)**, Cites (WoS): 43
- 17) Soto,M.J., Nogales,J., Pérez-Mendoza,D., Gallegos,M.T., Olivares,J.& Sanjuán,J. Pathogenic and mutualistic plant-bacteria interactions: ever increasing similarities. *Central European Journal of Biology* 6, 911-917 (2011). **Category: Biology (IF: 1.000; 58/84; Q3)**, Cites (WoS): 9

C.2. Congress

- Meetings: 41
 - ✓ Nationals: 10
 - ✓ Internationals: 31
- Invited conferences & oral presentations: 11. Some of the most relevant:
 - ✓ **Closing lecture in SEFIN XV** (León, Spain, 2015)
 - ✓ **Closing lecture in XIII Biochemistry Meeting** (Wesendorf, Germany, 2015).
 - ✓ **Oral presentation in Young Microbiologists Symposium on Microbe Signalling** (Dundee, Scotland, 2016)
 - ✓ **Oral presentation in SEM-Micro Molecular XI** (Seville, Spain, 2016).



- ✓ **Awarded oral presentation** in MIP2017 (Salamanca, Spain, 2017)

C.3. Research projects

Total: **15**, **1 of them as Principal Investigator (Talent-Hub project, Marie Curie mobility's action, EEZ-CSIC & University of Kassel (Germany), 153.311€, 2 years)**. Participation in other national and international funding projects (Proyecto de excelencia JA 2010 and Plan Nacional 2011, 2014 y 2017; Total funding = + **1.200.000€**). In the last 10 years:

- **Title:** Regulación por diguanilato ciclico y funcion de proteínas y polisacaridos extracelulares en interacciones bacteria-planta. **Research entity:** Estación Experimental del Zaidín (CSIC). **PIs:** J. Sanjuán and MT gallegos. **Participant as:** Researcher. **Funding entity:** Plan Nacional (Ministerio de Economía, Industria y Competitividad). **Reference:** BIO2017-83533-P. **Starting date and duration:** 01/01/2018, 3 years. **Funding:** 278.300€.
- **Title:** New biopolymers activated by c-di-GMP in bacteria. **Research entity:** Estación Experimental del Zaidín (CSIC) and University of Kassel. **PI:** Daniel Pérez-Mendoza. **Participant as:** PI. **Funding entity:** Junta de Andalucía & European Union (FP7). **Reference:** THUB-12. **Starting date and duration:** 01/03/2015, 2 years. **Funding:** 153.000€.
- **Title:** Señalización por c-di-GMP en interacciones bacteria-planta. **Research entity:** Estación Experimental del Zaidín (CSIC). **PIs:** J. Sanjuán and MT gallegos. **Participant as:** Researcher. **Funding entity:** Plan Nacional (MINECO). **Reference:** BIO2014-55075-P. **Starting date and duration:** 01/01/2015, 3 years. **Funding:** 223.850€.
- **Title:** Role of the second messenger c-di-GMP in bacteria interacting with plants. **Research entity:** Estación Experimental del Zaidín (CSIC). **PIs:** J. Sanjuán and MT gallegos. **Participant as:** Researcher. **Funding entity:** Ministerio de Ciencia e Innovación. **Reference:** BIO2011-23032. **Starting date and duration:** 01/01/2012, 3 years. **Funding:** 278.000€.
- **Title:** Señalización molecular a través de c-di-GMP en interacciones planta-bacteria mutualistas y patogénicas. **Research entity:** Estación Experimental del Zaidín (CSIC). **PI:** MT gallegos. **Participant as:** Researcher. **Funding entity:** Proyecto de Excelencia (JA). **Reference:** CVI-5800. **Starting date and duration:** 10/03/2011, 3 years. **Funding:** 240.000€.

C.4. Contracts, technological or transfer merits

• Patents:

- 1) **Title:** Método para la producción de un poli- β 1,3- β 1,4-D-glucano a partir de bacterias. **Inventors:** Daniel Pérez Mendoza; Lorena Romero Jiménez; David Rodríguez Carbonell; María Trinidad Gallegos Fernández; Miguel Ángel Rodríguez Carvajal; Juan Sanjuán Pinilla. **Entity:** CSIC **Nº of patent:** P201431133 **Country:** Spain. **Date:** 28/07/2014
- 2) **Title:** Hiperproducción de Celulosa Bacteriana **Inventors:** Daniel Pérez Mendoza; M^a Trinidad Gallegos Fernández; M^a José Soto Misffut; Harold Alexis Prada Ramírez; Adela Olmedilla Arnald; Juan Sanjuán Pinilla **Entity:** CSIC. **Nº of patent:** P201230835. **Country:** Spain. **Date:** 31/05/2012.