MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE ABREVIADO (CVA)

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

CVA date	08/02/2025

Part A. PERSONAL INFORMATION

First name	Mª Belén		
Family name	Rodelas González		
Gender (*)	Female	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	mrodelas@ugr.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-5028-3219	

(*) Mandatory

A.1. Current position

Position	Full Professor (CU)		
Initial date	15/08/2012		
Institution	Universidad de Granada (UGR)		
Department/Center	Departamento de Microbiología	Facultad de Farmacia	
Country	España (Spain)	Teleph. number	+34 958241755
Key words	Microbial ecology and biodiversity –Biological wastewater treatment – Waste valorization - Micropollutants – Rhizosphere – Plant-bacterial interactions – Bacteriocins – *Quorum-sensing*		

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

Period	**Position/Institution/Country/Interruption cause**
2010-2012	Associate professor (PTU)/UGR/España (29 months)
2006-2010	Associate professor (PCD)/UGR/España (38 months)
2003-2006	Senior postdoctoral fellow, RyC/UGR/España (47 months)
1998-2002	Senior postdoctoral fellow, Plan Propio UGR/UGR/España (53 months)
1996-1998	Postdoctoral fellow/John Innes Center/Norwich, Reino Unido (24 months)
1991-1994	PhD student, MEC FPU/UGR/España (48 months)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Doctora en Farmacia (PhD)	Universidad de Granada, Spain	15/12/1995
Máster Universitario (MSc) "Biotecnología Ambiental"	Universidad de Granada, Spain	31/04/1991
Licenciada en Farmacia (BSc)	Universidad de Granada, Spain	19/07/1990

(Include all the necessary rows)

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

Belén Rodelas González currently holds a Full Professor position (Catedrática de Universidad) and is affiliated to the Department of Microbiology of Universidad de Granada (UGR) since 1991. She is a lecturer of the Degree in Pharmacy and of two Official Master's Degrees at the UGR. Her research career has been developed in two main lines of work: 1) Study of beneficial plant-bacteria interactions and their applications, and 2) Ecology and diversity of microorganisms in soil bioremediation and wastewater treatment. Through both lines, she has participated in the research teams of 35 funded Research Projects and Contracts, coordinating 4 of them as PI (Plan Nacional de I+D+I, CTM2010-17609/TECNO; CTM2007-65052/TECNO; PPQ2003-07978-V02-02, AGL2008-01750-E/AGR). In several of these projects, collaborations have been established with companies, mostly in the water/wastewater management sector. She has contributed to the training of researchers with the direction/co-

direction of 16 Master theses (DEA/TFMs) many of which were linked to internships in companies, and 9 PhD theses. Six of the 9 PhD graduates currently hold academic positions, work in healthcare or in biotechnology-based companies. Her scientific contributions have been reported in 103 articles published in international journals indexed in the Journal Citation Reports® (76% T1, 61% Q1, 32% D1 of their respective areas of knowledge, according to the impact factor of the journals in the year of publication), as well as in >100 communications to Congresses and 18 book chapters, of which she is the author or co-author. She was also co-editor of the book 'Beneficial plant-microbial interactions: Ecology and applications (CRC-Press, USA, 2013). Part of the results of her PhD generated knowledge transferable to the biotechnology sector, patented by the UGR (1995). She regularly reviews manuscripts for several international scientific journals in the areas of Microbiology, Biotechnology, Environmental Sciences and Water Resources, and is a member of the ANEP Panel of Experts for the evaluation of research projects since 2010. She was a member of the Board of the Spanish Society of Nitrogen Fixation (SEFIN) for 8 years (1998 -2005). She was part of the organizing committees of 4 national and 4 international Scientific Congresses, and was the webmaster of SEFIN (2004-2015) and Red Temática Nacional Biotecnología de las Interacciones Beneficiosas entre Plantas y Microorganismos (2006-2012, BIO2004-20504-E, BIO2006-28481-E, BIO2009-05735-E). Since 2010, she is the webmaster of the Department of Microbiology at UGR. Academic and scientific production indices: Quinquenios: 6 (1991-2022). Sexenios CNEAI: 5 (1991-2020). Tramos autonómicos (Junta de Andalucía): 5 (2019).

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

C.1. Publications *(see instructions)*

If applicable, indicate the number of citations and average per year.

Total No. of publications in indexed journals (1993-2025): **103.** Cited (08/02/2025): **3348** times (Scopus). Average cites/year (last 5 complete years, 2010-2024): **224 cites/year** (Scopus).
h index (08/02/2025): **33** (Scopus).

Ten selected papers, published since 2019:
CA: corresponding author; IF: impact factor; OA: open access

1. Pérez-Bou, L., González-Martínez, A., Cabrera, J.J., Juárez-Jiménez, B., **Rodelas, B.**, González-López, J., Correa-Galeote, D. 2024. Design and validation of primer sets for the detection and quantification of antibiotic resistance genes in environmental samples by quantitative PCR. Microbial Ecology 87:71. IF (JCR 2023): 3,3 (10/119 journals, **D1**, category "Marine & Freshwater Biology") https://doi.org/10.1007/s00248-024-02385-0 (**OA**)
2. Maza-Márquez, P., Gallardo-Altamirano, M.J., Osorio, F., Pozo C., **Rodelas, B.** 2023. Microbial indicators of efficient performance in an anaerobic/anoxic/aerobic integrated fixed-film activated sludge (A^2O-IFAS) and a two-stage mesophilic anaerobic digestion process. Chemosphere 235B:139164. IF (JCR 2023): 8.1 (32/358 journals, **D1**, category "Environmental Sciences"). DOI: 10.1016/j.chemosphere.2023.139164 (**OA**)
3. Ochoa-Hernández, M.E., Reynoso-Varela, A., Martínez-Córdova, L.R., **Rodelas, B**., Durán, U., Alcántara-Hernández, R.J., Serrano-Palacios, D., Calderón, K. 2023. Linking the shifts in the metabolically active microbiota in a UASB and hybrid anaerobic-aerobic bioreactor for swine wastewater treatment. Journal of Environmental Management 344:18435. IF (JCR 2023): 8,00 (34/358 journals, **D1**, category "Environmental Sciences")
DOI: https://doi.org/10.1016/j.jenvman.2023.118435
4. Argiz, L., Val Del Rio, A., Correa-Galeote, D., **Rodelas, B**., Mosquera-Corral, A. Simplified engineering design towards a competitive lipid-rich effluents valorization. 2023. Journal of Environmental Management 317:115433. IF (JCR 2023): 8,00 (34/358 journals, **D1**, category "Environmental Sciences") DOI: https://doi.org/10.1016/j.jenvman.2022.115433 (**OA**)
5. Pedrouso, A., Morales, N., **Rodelas, B**., Correa-Galeote, D., Val del Río, A., Campos, J.L., Vázquez-Padín, J., Mosquera-Corral, A. 2023. Rapid start-up and stable maintenance of the mainstream nitritation process based on the accumulation of free nitrous acid in a pilot-scale two-stage nitritation-anammox system. Separation and Purification Technology 317:123851. IF (JCR 2023): 8,1 (15/170 journals, **D1**, category "Engineering, Chemical") DOI: https://doi.org/10.1016/j.seppur.2023.123851 (**OA**)

6. Correa-Galeote, D., Roibás-Rozas, A., Mosquera-Corral, A., Juárez-Jiménez, B., González-López, J., **Rodelas, B.** 2021. Revealing the dissimilar structure of microbial communities in different WWTPs that treat fish-canning wastewater with different NaCl content. Journal of Water Process Engineering 44:9-98. IF (JCR 2021): 7,340 (8/100 journals, **D1**, category "Water Resources"). DOI: https://doi.org/10.1016/j.jwpe.2021.102328 (**OA**)
7. Gallardo-Altamirano, M.J., Maza-Márquez, P., Montemurro, N., Pérez, S., **Rodelas, B.**, Osorio, F., Pozo, C. 2021. Insights into the removal of pharmaceutically active compounds from sewage sludge by two-stage mesophilic anaerobic digestion. Science of the Total Environment 789: 147869. IF (JCR 2021): 10,753 (26/279 journals, **D1**, category " Environmental Sciences"). DOI: https://doi.org/10.1016/j.scitotenv.2021.147869 (**OA**)
8. Pedrouso, A., Correa-Galeote, D., Maza-Márquez, P., Juárez-Jimenez, B., González-López, J., **Rodelas, B.**, Campos, J.L., Mosquera-Corral, A., Val del Rio, A. 2021. Understanding the microbial trends in a nitritation reactor fed with primary settled municipal wastewater. Separation and Purification Technology 256: 117828. IF (JCR 2021): 9,136 (14/142 journals, **D1**, category "Engineering, Chemical") DOI: https://doi.org/10.1016/j.seppur.2020.117828
9. Correa-Galeote, D., Argiz, L., Mosquera-Corral, A., Val del Río, A., Juárez-Jiménez, B., González-López, J., **Rodelas, B.** 2022. Structure of fungal communities in sequencing batch reactors operated at different salinities for the selection of triacylglyceride-producers from a fish-canning lipid-rich waste stream. New Biotechnology 71:47-55. IF (JCR 2022): 5.400 (10/77 journals, **Q1**, category "Biochemical research methods") DOI: 10.1016/j.nbt.2022.08.001 (**OA**)
10. Gallardo-Altamirano, M.J., Maza-Márquez, P., Montemurro, N., **Rodelas, B.**, Osorio, F., Pozo. C. 2019. Linking microbial diversity and population dynamics to the removal efficiency of pharmaceutically active compounds (PhACs) in an anaerobic/anoxic/aerobic (A^2O) system. Chemosphere 233: 828-842. IF (JCR 2019): 5,788 (29/265 journals, **Q1**, category "Environmental Sciences"). DOI: 10.1016/j.chemosphere.2019.06.017

C.2. Congresses, indicating the modality of their participation (invited conference, oral presentation, poster)

Total No. of communications: **106.** Since 2020: 19 (14 international congresses, 5 national congresses); Plenary sessions: 1; Oral communications: 7; Posters: 11).

Selected participations since 2020 (* = presenting author):
1. Purswani J.*, Angeles de Paz G., Robledo T., **Rodelas B.**, Juárez-Jiménez B., Gonzalez-López, J., Pozo C., Aranda E. **Oral presentation.** Designing social bioinoculants for bioremediation with BSocial. **BIOREMID 2023**, Suiza. 29-30/06/2023.
2. Pozo, C, **Rodelas, B.**, Juárez-Jiménez, B., Escolano, N., Vílchez, R., González-López, J., Purswani, J.*. Social PGPMs for future biofertilizers. **Plenary session. XVIII National Meeting of the Spanish Society of Nitrogen Fixation (SEFIN) – I Spanish Congress on Beneficial Plant-Microbe Interactions (BeMiPlant)**. Oeiras, Portugal, 17-19/10/2022
3. Gallardo-Altamirano M.J, Maza-Márquez, P., Osorio, F., Pozo, C., **Rodelas, B.*** Relación entre la diversidad de las comunidades microbianas y la eficiencia de la eliminación de fármacos en el tratamiento de aguas residuales urbanas. **Invited oral presentation** (online). **II Coloquio en Biociencias de la Universidad de Sonora.** Hermosillo, México, 25-27/11/2020

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

Contributing as a member of the reserch team in the following projects (last 5 years):

1. TITLE: "Deciphering the microbial key populations involved in the valorization of pig manure by an integrated biofactory" FUNDING ADMINISTRATION: Plan Estatal de I+D+i - MICINN (PID20233-148872OB-C22) PERIOD: 01/09/2024-31/12/2027. PRINCIPAL INVESTIGATORS: Alejandro González Martínez (IP1), Jesús González López (IP2). FUNDING: 198.750,00 €
2. TITLE: "Social microbial bioinoculants to mitigate climate change stress on plant growth (BSocial-PGPM)" FUNDING ADMINISTRATION: Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad - MICINN (PID2020-118959RA-

I00). PERIOD: 01/09/2021-30/08/2025. PRINCIPAL INVESTIGATOR: J. Purswani. FUNDING: 146.410 €
3. TITLE: “Unravelling the microbial key populations involved in the production of value-added storage compounds (PHAs and/or TAGs) from lipid wastes. (MICROPOLYVER)”. FUNDING ADMINISTRATION: Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad – MICINN (PID2020-112550RB-C22). PERIOD: 01/09/2021-30/08/2024. PRINCIPAL INVESTIGATOR: J. González López (IP1), A. González Martínez (IP2). FUNDING: 165.770 €
4. TITLE: “El resistoma de las comunidades microbianas en biorreactores granulares aerobios aplicados al tratamiento de aguas residuales hospitalarias” FUNDING ADMINISTRATION: Proyectos de Excelencia de la Junta de Andalucía (A-RNM-62-UGR20). PERIOD: 01/07/2021-30/06/2023. PRINCIPAL INVESTIGATOR: J. González López (IP1), A. González Martínez (IP2). FUNDING: 50.000 €
5. TITLE: Recuperación de tierras de secano para cultivos de regadío mediante consorcios microbianos (GENERAGUA). FUNDING ADMINISTRATION: Junta de Andalucía- Fondos FEDER (P18-RT-976). PERIOD: 01/01/2020-31/03/2023. PRINCIPAL INVESTIGATOR: Maximino Manzanera (IP1), Elisabet Aranda (IP2). FUNDING: 108.292 €
6. TITLE: “Linking microbial community diversity to efficiency of wastewater treatment in the fish canning industry at high salinity and low temperature (MICROSALT).” FUNDING ADMINISTRATION: Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad, MINECO (CTQ2017-83225-C2-2-R). PERIOD: 01/01/2018-30/09/2021. PRINCIPAL INVESTIGATOR: J. González López (IP1), B. Juárez Jiménez (IP2). FUNDING: 175.450 €
7. TITLE: “Demonstration project for groundwater treatment with an innovative system based in aerobic granular technology (ECOGRANULARWATER)”. FUNDING ADMINISTRATION: EU (LIFE16ENV/ES/000196). PERIOD: 01/09/2017-30/09/2021. PRINCIPAL INVESTIGATOR: J. González López. FUNDING: 153.938 € (partner UGR; total: 990.000 €)
8. TITLE: “Recuperación de tierras secas para agricultura por irrigación bacteriana”. FUNDING ADMINISTRATION: MINECO EXPLORA CIENCIA. (CGL2017-91737-EXP). PERIOD: 01/01/2018-31/12/2020. PRINCIPAL INVESTIGATOR: M. Manzanera Ruiz. FUNDING: 48.400 €
9. TITLE: “Estudio técnico y biológico de un sistema MBBR con digestión bifásica en línea de fangos para la eliminación de contaminantes emergentes en aguas residuales urbanas.” FUNDING ADMINISTRATION: Plan Estatal de I+D+i, Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Estatal de Generación del Conocimiento (CTM2014-60131-P). PERIOD: 01/01/2015-31/12/2018. PRINCIPAL INVESTIGATOR: F. Osorio Robles (IP1), C. Pozo Llorente (IP2). FUNDING: 111.000 € + 1 FPI fellowship

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

Patent: Rodelas, B., González-López, J. 1995. “Utilización de *Rhizobium leguminosarum* bv. *viceae* cepa Z25 como inoculante para el cultivo de plantas leguminosas.” PATENT APPLICATION No.: P9502149. PRIORITY COUNTRIES: España. DATE: 03/11/1995. ASIGNEE: Universidad de Granada (UGR).