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	Juan Manuel		
Family name	Cuerva Carvajal		
Gender (*)		Birth date	
ID number			
e-mail	jmcuerva@ugr.es	URL Web	https://qomem.ugr.es/pages/publicaciones
Open Researcher and Contributor ID (ORCID) (*)		0000-0001-6896-9617	

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	Jan-2017		
Institution	University of Granada		
Department/Center	Organic Chemistry		
Country	Spain	Teleph. number	958243319
Key words	Organometallic Chemistry, natural product synthesis, radical chemistry, organic materials, fluorescent probes		

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

Period	Position/Institution/Country/Interruption cause
1993-1997	FPI Regional Grant/UAM/Spain
1997-1998	Assistant Professor/UAM/Spain
1998-1999	"Ayudante LRU 1er ciclo"/UGR/Spain
2000-2002	"Ayudante LRU 2do ciclo" /UGR/Spain
2002-2017	Associate Professor/UGR/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Chemistry Degree, Esp. Organic Chemistry	Universidad de Granada	1992
Chemistry Degree, Esp. Technical Chemistry	Universidad de Granada	1992
PhD Organic Chemistry	Universidad Autónoma de Madrid	1997

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

Biography: Graduated in Chemistry from the UGR (1992) in two specialties: Organic Chemistry and Technical Chemistry. PhD from the Autonomous University of Madrid (1997) under the supervision of Prof. A. M. Echavarren. In 1998, I joined the staff of the University of Granada, currently as full Professor.

Scientific interest: Scientific curiosity is dynamic and consequently many scientific areas have been covered along the years. With a synthetic background, I have been interested in new synthetic methodologies for total synthesis. In this context, bioinspired radical carbocyclizations based on Ti(III) were developed, being now used by different international groups in terpene synthesis. Recently, material chemistry based on carbon catched my attention. Within this context, different projects mainly based on chiral entities have been successfully developed. Particularly, intriguing Chiral Induce Spin Selectivity (CISS) effect, pi-magnetism, and Circularly Polarized Emission/Electronic Circular Dichroism (CPL/ECD)

connection is now a hot topic and has been explored in our group. On the other hand, vaccines based on small lipid to prevent infections in pregnant women is also one of my recent motivations.
Scientific contributions: I am the author of more than 160 scientific publications in high distinguished journals such as *Nat. Commun. Angew. Chem., J. Am. Chem. Soc., Chem Sci., Chem. Commun., Org. Lett.*, or *J. Org. Chem*) resulting in a h index of 41 (WoS)/ 47 (google scholar).
Funding: I have participated in numerous Research Projects (50) being in very recent years Principal Investigator of twelve of them, including regional, national and international ones.
Expertise: My scientific trajectory has allowed me to acquire expertise not only on organic methodology but also in different techniques such as STM-BJ techniques or ECD/CPL. The expertise in now recognize by other groups to which we assist in many of the corresponding measurements.
Leadership: Since early 2000s we have supervised the research corresponding to the diverse research lines. As a result I have been IP of many research projects of different thematic. In 2009 I created a "Junta de Andalucía" research group "FQM-367. Materiales organicos funcionales MOReFUN" which is now a very active a dynamic group of researchers. See: https://qomem.ugr.es/. On the other hand, in a recent list by our University I appear as one of the most influent scientists at the UGR specially in the field of Chemistry and material science: https://ugr.influscience.eu/
Internationalization: Beyond publications in international journals, I have been IP of international projects with USA and Japan and established collaborations with international recognized researchers (i. e. Prof. Stoddart, Nobel Prize in Chemistry).
Transference activities: Some contracts with the industry have been developed in the context of olive oil analysis and more recently in the recovery of solar panels
Doctoral Training: I have supervised 21 doctoral theses, 8 of them as extraordinary doctoral awards and 12 with international mention. Four of the former PhD students are currently Assistant Professors at the University with their own independent research lines and the most recent ones carrying out postdoctoral studies.
Management actions: Currently, I am the Head of the Department of Organic Chemistry at the University of Granada (2019-) and previously Secretary of the Department for more than 8 years. I am also research assistant of the Andalusia evaluation agency in the Chemistry area.
Prizes: In 2015 I was awarded with the "Ignacio Ribas" Medal, from the Specialized Group on Organic Chemistry of the Royal Spanish Chemistry Society.
Complementary issues: One of the main characteristics of a scientist it is to know when you do not know. In this sense, synergy partners are always a boost in the search of new knowledge. This is the case in the current call in which the rest of the coordinated projects provide experience in different areas. Nevertheless, it is especially relevant in the case of our subproject in which the complementary experience of both IPs in Organic Chemistry and Physical chemistry/photophysics is key for the success.

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

C.1. Publications *(CA, corresponding author)*

1. Can Magnetic Dipole Transition Moment Be Engineered?
R. G. Uceda, C. M. Cruz, S. Míguez-Lago, …., Dr. Pavel Novoa (CA), Dr. Antonio J. Mota (CA), Prof. Juan M. Cuerva (CA), Dr. Delia Miguel (CA) (9/10)
Angew. Chem. Int. Ed. **2023**, *62*, e202316696

2. Chiral Single-Molecule Potentiometers Based on Stapled ortho-Oligo(phenylene)ethynylenes.
A. M. Ortuño, P. Reiné, L. Álvarez de Cienfuegos,…, M. T. González (CA), L. A Zotti (CA), D. Miguel (CA), J. M Cuerva (CA) (15/15)
Angew. Chem. Int. Ed. **2023**, *62*, e202218640

3. Helically Chiral Hybrid Cyclodextrin Metal–Organic Framework Exhibiting Circularly Polarized Luminescence
M. Kazem-Rostami, A. Orte, A. M. Ortuño, …, J. M. Cuerva (CA), J. F. Stoddart (CA) (10/11)

J. Am. Chem. Soc. **2022**, *144*, 9380−9389

4. Molecular Functionalization and Emergence of Long-Range Spin-Dependent Phenomena in Two-Dimensional Carbon Nanotube Networks
W. Rahman, M. C Manas-Torres, S. Firouzeh, J. M. Cuerva, L. Álvarez de Cienfuegos, S. Pramanik
ACS Nano, **2021**, 15, 20056

5. Lipid analogs reveal features critical for hemolysis and diminish granadaene mediated Group B Streptococcus infection
B. Armistead, P. Herrero, M. Coleman,… J. M. Cuerva (CA), L. Rajagopal (CA) (16/17)
Nat. Commun. **2020**, *11*, 1502.

6. A [2] Rotaxane-Based Circularly Polarized Luminescence Switch.
A. H. G. David, R. Casares, J. M. Cuerva (CA), A. G. Campaña, V. Blanco (CA).
J. Am. Chem. Soc. **2019**, *141*, 13244-13252.

7 Undecabenzo[7]superhelicene: a helical nanographene ribbon as CPL emitter
C. M. Cruz, S. Castro-Fernández, E. Maçôas, J. M. Cuerva, A. G. Campaña.
Angew. Chem. Int. Ed. **2018**, *57*, 14782-14786 (VIP paper)

8. Stapled helical o-OPE foldamers as new circularly polarized luminescence emitters based on carbophilic interactions with Ag(I)-sensitivity
S. P. Morcillo, D. Miguel, L. Álvarez de Cienfuegos, ….G. Longhi (CA), J. M. Cuerva (CA) (16/16)
Chem. Sci., **2016**, *7*, 5663-5670.

9. Toward multiple conductance pathways with heterocycle-based oligo(phenyleneethynylene) derivatives
D. Miguel, L. Álvarez, A. Martín-Lasanta,…J. M. Cuerva (CA), M. T. González (CA) (13/14)
J. Am. Chem. Soc. **2015**, *137*, 13818–13826.

10. Ti (III)-catalyzed cyclizations of ketoepoxypolyprenes: control over the number of rings and unexpected stereoselectivities
S. P Morcillo, D. Miguel, S. Resa, …, A. J Mota (CA), J. Justicia (CA), J. M Cuerva (CA) (10/10)
J. Am. Chem. Soc. **2014**, *136*, 6943–6951.

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

- *Bioinspired Terpene Synthesis: a Radical Approach, Invited Conference ((IC)* XXXV Bienal RSEQ, A Coruña, 2015
- *Oligo Phenylene Ethynylenes (OPEs), New Tricks for an Old Dog, (IC)* XXVI Bienal of Organic Chemistry, Junio de 2016, Huelva.
- *Una aproximación radicalaria a la síntesis de terpenos. (IC)* Symposium de Productos Naturales, Junio 2017, Instituto de Química de la UNAM, México
- *Oligo (Phenylene Ethynylene)s (OPEs): new twists on electronic and optical properties. (IC)* Spanish - Italian Symposium on Organic Chemistry (SISOC - XII), Ferrara 2018.
- *New tricks for old dogs.* Arizona State University (ASU), *(IC)* March 2022
- *New twists for Spins (an organic view), (IC),* X REQOMED Valencia, October 2022
- *Organic Chemistry, a helping hand for other research areas, (IC),* Seattle Childrens´ Hospital Research Center, Seattle, July 2023.

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

1 Code acc. to the funding institution: 12877SUB
Title: Neutralization of the GBS lipid toxin
Principal investigators (PI): Juan Manuel Cuerva Carvajal and Rajopagal Lakshmi.

Personal contribution: **PI**
Funding agency: National Institute of Health (NIH), USA
Dates: 01/06/2022 - 31/05/2027. Budget amount: **300.000 $**

2 Code acc. to the funding institution: To be determined
Title: DeCOSMOSOL
PI: Juan Manuel Cuerva Carvajal and Teresa Gonzalez.
Personal contribution: **PI**
Funding agency: EIG CONCERT-Japan 9th Design of Materials with Atomic Precision
Dates:01/04/2023 - 31/03/2026. Budget amount: **120.000 $**

3 Code acc. to the funding institution: PID2020-113059GB-C21
Title: Synthesis and modelling of new materials with enantiospecific optical and magnetical properties (ENANTIOSPIN).
PI: Juan Manuel Cuerva Carvajal/ Delia Miguel
Personal contribution: **PI**
Funding agency: Ministerio de Ciencia e Innovación
Dates: Sept 2021-Aug. 2024. Budget amount: **157.300 €**

4 Code acc. to the funding institution: A-FQM-221-UGR18
Title: Conductividad unimolecular en PAHs dopados con nitrógeno y boro como modelos de conductividad en BN-grafenos.
Funding agency: Proyectos de I+D+i por equipos de investigación en el marco del Programa Operativo FEDER de Andalucía 2014-2020. Modalidad Frontera
PI: Juan Manuel Cuerva Carvajal/ Alba Millan
Personal contribution: **PI**
Dates: 01/01/2020 al 31/12/2021. Budget amount: **37.150 €**

5 Code acc. to the funding institution: CTQ2017-85454-C2-1-P
Title: Synthesis and applications of homochiral photoactive organic systems.
Funding agency: Ministerio de Ciencia e Innovación (2017)
IP: Juan Manuel Cuerva Carvajal/ Delia Miguel
Personal contribution: **PI**
Dates: 2018-2020. Budget amount: **121.000 €**

6 Code acc. to the funding institution: CTQ2014-53598
Title: Materiales Orgánicos Funcionales
Funding agency: Ministerio de Ciencia e Innovación (2014)
PI: Juan Manuel Cuerva Carvajal
Personal contribution: **PI**
Dates: 2014-2017. Budget amount: **141.000 €**

7 Code acc. to the funding institution: P12-FQM-790
Title: Disociación homolítica de enlaces O-H: aplicaciones prácticas e implicaciones en Química, Física y Bioquímica
Funding agency: Proyecto de Excelencia Junta de Andalucía-
PI: Juan Manuel Cuerva Carvajal
Personal contribution: **PI**
Dates: 2014-2019. Budget amount: **273.894 €**

8 Code acc. to the funding institution: 1R01AI112619-01
Title: Role of an ornithine rhamnolipid pigment in GBS virulence
Funding agency: NIH (Estados Unidos)
PI: Dr. Lakshmi Rajagopal/Juan Manuel Cuerva
Personal contribution: **PI** of subproject 11074SUB
Dates: 2014-2016. Budget amount: **54.000** $

C.4. Contracts, technological or transfer merits,

1 Company: **Greening (Granada)**
Contract: Chemical evaluation of material recovering in solar cell pannels.
Dates: 2022. Budget amount: 26000 Eur

2 Company: **Vadolivo S. A. (Jaen)**
Contract: Preparación de patrones deuterados como referencias en el analisis de aceite de Oliva Virgen
Dates: 2015-2016. Budget amount: 24000 Eur

CURRICULUM VITAE ABREVIADO (CVA)

Part A. PERSONAL INFORMATION

First name	Alicia		
Family name	Megía Fernández		
Gender	Female	Birth date	
e-mail	amegia@ugr.es	URL Web	https://bit.ly/m/AMF
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-1373-8675	

A.1. Current position

Position	Profesora Titular		
Initial date	04-06-2024		
Institution	University of Granada		
Department/Center	Organic Chemistry	Faculty of Sciences	
Country	SPAIN	Teleph. number	958243364
Key words	Medicinal chemistry, Optical imaging, Sensing, Bioconjugation		

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

Period	Position/Institution/Country/Interruption cause
Nov2023-Jun2024	Profesora Permanente Laboral
Mar2022-Oct2023	Profesora Ayudante Dr
Jan2022-Mar2022	Ayuda María Zambrano Atracción Talento Internacional – Modalidad Senior. Univ Granada
Oct2015-Dec2021	Postdoctoral Research Assistant / University of Edinburgh / UK
Oct2013-Sep2015	Marie Skłodowska-Curie IEF Fellow/ Univ of Edinburgh / UK
Oct2012-Sep2013	Beca Postdoctoral Fund. Ramon Areces / Univ of Edinburgh/ UK
May2012-Sep2012	Contrato con cargo a Proyecto de Investigación / Univ. Granada
May 2011-April 2012	Ayuda Puente Doctores Plan Propio / Univ. Granada
April 2007-April 2011	Beca Formación de Profesorado Univ (FPU) / Univ. Granada

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licenciatura en Química. *Premio Extraordinario*	Univ of Granada/ Spain	2006
Máster en Química	Univ of Granada/ Spain	2007
Doctorado. *Premio Extraordinario*	Univ of Granada/ Spain	2011

Part B. CV SUMMARY

Dr. Megia-Fernandez (https://bit.ly/m/AMF) (completed her BSc, MSc, and PhD, under the supervision of Prof. Santoyo-Gonzalez, at the University of Granada, being awarded the "Extraordinary Award" for both my BSc and PhD in Experimental Sciences. Following that, she moved to the University of Edinburgh (ranked 35th in Shanghai) to work with Prof. Bradley, thanks to funding from two competitive postdoctoral programs: the Ramón Areces Postdoctoral Fellow and the Marie Sklodowska-Curie Intra-European Fellow. I returned to the University of Granada as a "María Zambrano Senior Fellow" and became “Profesora Ayudante Dra” achieving also the I3 Program certificate, then “Profesora Permanente Laboral” and more recently “Profesora Titular”.

1. Generation of knowledge:

1.1. *Scientific contributions*. Dr. Megia-Fernandez scientific contributions are in the field of Chemical Biology, developing organic compounds and functionalized hybrid materials (organic/inorganic) with applications in labelling, diagnosis (cancer, inflammation, bacterial infection), transfection, enzymatic and pH sensing, or click catalysis as the main contributions. Examples include: (i) the design and proof of concept of a novel peptide to paint fluorescently tumours which could help in the diagnosis and treatment (fluorescence guided surgery) of cancer (*Chem Commun 2020, corresponding author,* Patent) and (ii) chemical probes to measure bacterial and enzyme activity in human lungs in real time reaching clinical trials to monitor inflammation (*BME Frontiers*, 2021 first author, Patent, *Sci Trans Med* 2018), being responsible from the design, to the GMP synthesis (HTAF) of the compound to reach the

patients, improving my translational skills. My participation in projects (see C.3) as the leader of the chemical work packages in multidisciplinary projects (Chemistry-Physics-Biology, see https://proteus.ac.uk/), and as ***Researcher Co-Investigator*** in a EPSRC funded project (£1.115M), as well as Lead applicant in several Confidence in Concept projects (43K + 85K £), has improved my supervision and independence skills.

1.2. *Results.* Author of 39 publications in high quality international journals (29% as first author and three as corresponding author), and participation in International Conferences with invited and oral presentations. (H index: 18; Times cited: 1169) (Source: Clarivate, Jun24).

1.3. *Interdisciplinary collaborations*: Being part of multidisciplinary projects, Dr. Megia-Fernandez has developed a network within and beyond chemistry, collaborating with researchers in the medical field and healthcare while gaining experience in translational and regulatory pathways: Dr. Tunner, (Photonic Instrumentation Group, Heriot Watt University), Dr Akram (Centre for Inflammation Research Univ of Edinburgh, CancerResearchUK Fellow), Prof Dhaliwal (Chair of Molecular Imaging & Healthcare Technology, Consultant Physician in Respiratory Medicine, Univ of Edinburgh).

2. *Contributions to society*:

2.1. *Knowledge-transfer for the technological development and innovation activities:* Dr. Megia-Fernandez is the inventor of six patents, three under exploitation (see C.4).

2.2. *Citizen science:* Organization and participation in a variety of public engagement activities with high-school students, in House of Commons, Science Festivals and Museums (Proteus Research Capsule at Glasgow Science Centre).

3. Development of individuals/other activities:

3.1. Development of individuals: Dr. Megia-Fernandez has contributed to the training of young researchers in: a) the direction of Undergraduate (4 TFG) and Master (6 TFM) Degree Final Projects.

3.2. Other activities: Dr. Megia-Fernandez has participated as external PhD examiner and in peer review activities with journals. She also was selected to participate in the 20/21 Aurora-HEA, program that supports women in “Leadership in High Education” to improve management, decision-making and leadership skills. She was also awarded an Associate Fellowship in HEA (UK, 2021).

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

C.1. Selected Publications (full list: https://orcid.org/0000-0002-1373-8675)

1. **“A Fluorogenic, Peptide-Based Probe for the Detection of Cathepsin D in Macrophages".** M. Rodriguez-Rios, B. McHugh, L. Zhengqi, A. Megia-Fernandez, A. Lilienkampf, D. Dockrell, M. Bradley. *Communications Chem.*, **2023**, 6, 237. Author position (4/7) IF 5.9 (2022) Chemistry, Multidisciplinary
2. **Moving into the red – a near infra-red optical probe for analysis of human neutrophil elastase in activated neutrophils and neutrophil extracellular traps”.** Rodriguez-Rios, M. Rinaldi, G., **Megia-Fernandez,** A.,Lilienkampf, A.,Robb, C. T., Rossi, A. G.,Bradley, M. *Chem. Commun.,* **2023,** 59, 11660-11663**.** Author position (3/7) IF 4.9 (2022) Chemistry, Multidisciplinary
3. **Fibroblast Activation Protein Specific Optical Imaging in Non-Small Cell Lung Cancer.** L. Mathieson, R.A. O’Connor, H. Stewart, P. Shaw, K. Dhaliwal, G.O.S. Williams, **A. Megia-Fernandez** and A.R. Akram. *Front. Oncol.* **2022** *12:834350.* Author position (7/8). IF 5.738 (2021), Oncology 62/242
4. **Peptide probes for proteases – innovations and applications for monitoring proteolytic activity.** M. Rodriguez-Rios, **A. Megia-Fernandez**, D.J. Norman and M. Bradley. *Chem Soc Rev* **2022**, *51*, 2081-2120. Author position (2/4) IF 60.615 (2021) Chemistry, multidisciplinary 2/179.
5. **Red-Shifted Environmental Fluorophores and Their Use for the Detection of Gram-Negative Bacteria. A. Megia-Fernandez*,** M. Klausen, B. Mills, G. E. Brown, H. McEwan, N. Finlayson, K. Dhaliwal, M. Bradley. *Chemosensors* **2021**, *9(6)*, 117. IF 3.398. *First and Corresponding author.* (1/8)

6. **Optical Detection of Distal Lung Enzyme Activity in Human Inflammatory Lung Disease. A.Megia-Fernandez,** A.Marshall, A.R.Akram, …, M.Bradley*, K.Dhaliwal*, *BMEFrontiers* **2021**, 9834163. *First author (1/20)*
7. **A matrix metalloproteinase activation probe for painting human tumours.** B.Mills, A.R.Akram, D.Norberg, K.Dhaliwal, M.Bradley, **A.Megia-Fernandez*** *Chem Commun* **2020**, *56*, 9962-9965. *Featured as **HOT** article. Corresponding author* **(6/6)** IF 6.222.
8. **Molecular detection of Gram-positive bacteria in the human lung through an optical fiber based endoscope.** B.Mills, **A.Megia-Fernandez**, D.Norberg, …, M.Ucuncu*, J.M.Stone* *Eur J Nucl Med Mol I* **2021**. **(2/24)** IF 9.236.
9. ***In situ* identification of Gram-negative bacteria in human lungs using a topical fluorescent peptide targeting lipid A.** A.R.Akram, S.V.Chankeshwara, E.Scholefield, T.Aslam, N.McDonald, **A.Megia-Fernandez**, …, M.Bradley and K.Dhaliwal* *Sci Transl Med* **2018***, 10*, eaal0033. **(6/20)** IF 17.200.
10. **Bimodal fluorogenic sensing of matrix proteolytic signatures in lung cancer. A.Megia-Fernandez**, B.Mills, C.Michels, S.V.Chankeshwara, N.Krstajić, C.Haslett, K.Dhaliwal and M.Bradley* *Org Biomol Chem*, **2018**, *16*, 8056-8063. *Featured in the Cover.* **(1/8)** IF 3.490

C.2. Congress, indicating the modality of their participation

1. 27-30 Jun 2022. **XXXVIII Reunión Bienal RSEQ.** ***"****Fluorogenic peptide-based MMP probes for cancer diagnosis"*. A. Megia-Fernandez, B. Mills, A.R Akram, K. Dhaliwal, M. Bradley. Granada. Oral Presentation.
2. 7 Jan 2021. **RSC Organic Division** – Scottish Perkin Meeting. "Fluorescent Probes for Diagnosis of Lung Disease". A. Megía-Fernandez. *On-line*. Invited speaker.
3. 19-22 Mar 2019. **European Molecular Imaging Meeting EMIM2019**. *"Optical probes for enzymatic sensing in lung tissue"* A. Megia-Fernandez, B. Mills, C. Michels, S. V. Chankeshwara, N. Krstajic, C. Haslett, K. Dhaliwal, M. Bradley. Poster. Glasgow, UK.
4. 7-10 Sep. 2016 **World Molecular Imaging Meeting**. *"Optical detection of matrix metalloproteinases in pulmonary fibroproliferative disease using optical endomicroscopy in the distal lung"* B. Mills, A. Megia-Fernandez, S. V. Chankeshwara, E. Scholefield, C. Michels, A. Miele, A.R Akram, N. Krstajic, I.C. Murray, M. Bradley, K. Dhaliwal. Oral presentation. New York, USA.
5. 7-10 Sep 2016. **World Molecular Imaging Meeting**. *"Fluorogenic dual-probe for the simultaneous detection of proteases with biomedical importance at two wavelengths"* A. Megia-Fernandez, B. Mills, C. Michels, C. Haslett, K. Dhaliwal, M. Bradley. Poster. New York, USA.
6. 25 Ago 2016. **EaStCHEM Conference for Early Career Researcher**s. *"Optical smartprobes for detection of lung disease"*. A. Megia-Fernandez. Poster Award. Edinburgh, UK.

C.3. Research projects

1. *Matrices poliméricas biodegradables basadas en polisacáridos y ciclodextrinas. Materiales secuestrantes de contaminantes emergentes en aguas. PROYECTOS DE I +D +I EN EL MARCO DEL PROGRAMA OPERATIVO FEDER ANDALUCIA 2014-2020. B-FQM-316-UGR20. 35000 € 23/05/2022 a 30/06/2023. PI: FRANCISCO SANTOYO GONZALEZ, FRANCISCO JAVIER LOPEZ JARAMILLO*
2. *Enzymatic colorimetric detection with polydiacetylene.* Proyectos de Investigación Precompetitivos Jóvenes Investigadores. UGR. Jan 2023-Dec 2023. €1500, *PI*
3. *IRC Next Steps Plus- Photonic Pathogen Theranostics - Point-of-care image guided photonic therapy of bacterial and fungal infection.* EPSRC, UK (Ref. EP/R018669/1).Jul 2019-Jun 2022, PI: Kevin Dhaliwal, (Univ of Edinburgh) £1.115M. ***Researcher Co-Investigator****.* Responsible for Work Package 1 (1 out of 3): Chemistry Therapeutically Activatable Photonic Sensors (TAPS).
4. *EPSRC IRC **Proteus**-Multiplexed 'Touch and Tell' Optical Molecular Sensing and Imaging - Lifetime and Beyond.* EPSRC, UK (Ref. EP/R005257/1) Jan 2019-Jun 2023.PI: Mark Bradley (Univ of Edinburgh) £3.852M *Postdoctoral Researcher Associate.* Responsible for WP2 (2/6): SmartProbes and Sensing. Life-time Probes – The Next Dimension
5. ***Proteus****- Multiplexed 'Touch and Tell' Optical Molecular Sensing and Imaging*. EPSRC Interdisciplinary Research Collaboration, UK (Ref. EP/K03197X/1). Oct 2015 – Jan 2019,

PI: Mark Bradley (Univ of Edinburgh), £9.43M. *Postdoctoral Researcher Associate.* WP: Chemistry: SmartProbes and Sensing. Translational Team.

6. *Imaging Fibrosis - Chemistry and Optical Confocal Laser Endomicroscopy.* Marie Curie Intra-European Fellowship, EU Commission (Ref. FP7-IEF-326465) Oct 2013 – Sep 2015, PI: Mark Bradley (Univ of Edinburgh), €231,283. *Researcher and coordinator.*
7. *Point of care diagnostics for infective keratitis.* Funding: HTAF-CiC, MRC (Healthcare Technology Accelerator Facility Confidence in Concept Award, Medical Research Council, UK) 01/08/2019- 29/02/2020; PIs: A. Megia-Fernandez/B. Mills/G. Williams (Univ of Edinburgh). 43,644.66 £ *Principal Investigator*. Responsible for the development of fluorescent bacterial probes.
8. *Molecular imaging of retinal lymphocytes in humans.* HTAF-CiC, MRC (Healthcare Technology Accelerator Facility Confidence in Concept Award, UK) Aug 2019- Jan 2020, PIs: A. Megia-Fernandez, Ian McCormick (Univ of Edinburgh) £85k; *Principal Investigator*. Responsible for the development of fluorescent probes for inflammation.
9. *Proteus Participation in Carb-X (BUFRN 4500002330).* CARB-X (Combating Antibiotic Resistant Bacteria), USA. Apr 2017- Jul 2019, PI: M. Bradley, K. Dhaliwal, (Univ of Edinburgh) £0.9M. *Postdoctoral Researcher Associate.*
10. *Nuevas metodologías para la preparación de materiales basados en sílice. Aplicaciones Tecnológicas y Biotecnológicas (P07-FQM-02899).* Consejería de Economía, Innovación y Ciencia. Convocatoria Proyectos de Excelencia. Mar 2008-Feb 2012, PI: F. Santoyo-Gonzalez (UGR) €344.414. *Predoctoral Researcher.*
11. *Aplicaciones tecnológicas y biotecnológicas de la química de vinil sulfonas y sulfatos cíclicos (CTQ-2008-01754)* Funding: Ministerio de Ciencia e Innovación. Proyectos 2008. Jan 2009-Dec 2011, PI: F. Santoyo-Gonzalez (UGR) €175.450. *Predoctoral Researcher.*

C.4. Contracts, technological or transfer merits.

PATENTS: https://www.lens.org/lens/profile/490254082/scholar

1. **"FAP detection"** A. R. Akram, A. Megia-Fernandez, L. Mathieson. Application PCT/GB2022/053125
2. **"Optical probes for matrix metalloproteinases"** WO 2016151299A1, PCT/GB2016/050765 M.Bradley, S.V.Chankeshwara, A.Megia-Fernandez. US10507247B2, as derived from WO2016/151299, Univ. of Edinburgh technology reference TEC1103740 MMP Chemical Probe, optioned to *Edinburgh Molecular Imaging* 2014 - 2019.
3. **"Optical probe for thrombin"** WO2016151297A1 M.Bradley, S.V.Chankeshwara, A.Megia-Fernandez. University of Edinburgh technology reference TEC1103741 (Thrombin Chemical Probe) was optioned to the company *Edinburgh Molecular Imaging* (2014-2019)
4. *P201001350* ***"Dendrímeros basados en PAMAM derivatizado con grupos alquilsulfonilo"*** J.Morales Sanfrutos, F.Santoyo Gonzalez, M.D.Giron Gonzalez, A. Megia Fernandez, F.Hernandez Mateo, R.Salto Gonzalez. Publication No: ES2351909 B1. 19/12/2011. International extension: PCT/ES2011/000256 Published as WO/2012/049338
5. *P201031944* ***"Compuestos poliméricos con propiedades inmovilizantes"*** J.F.Fernandez Sanchez, A.Fernandez Gutierrez, F.Santoyo Gonzalez, A.L.Medina Castillo, J.Morales Sanfrutos, A.Megia Fernandez. Publication No: ES2385172 B1. 13/05/2013. International extension: PCT/ES2011/000362 (07/12/2011) WO/2012/085303
   Explotation by Nanomateriales y Polímeros, S.L.,2012
6. P200902389 **"Sistemas lipídicos funcionalizados con vinilsulfonas: síntesis y usos"** F.Santoyo Gonzalez, A.Osuna, J.Morales Sanfrutos, A.Megia Fernandez, T.Cruz Bustos, G.M.Gonzalez Gonzalez. Publication No: ES2337226 B2 14/09/2011. International extension: PCT/ES2010/000525 (15/12/2010). WO/2011/073473

Part A. PERSONAL INFORMATION

CVA date	October 21, 2024

First name	Sofía		
Family name	Salido Ruiz		
e-mail	ssalido@ujaen.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0003-2319-7873		

(*) Mandatory

A.1. Current position

Position	Professor of Chemistry/Catedrática de Universidad		
Initial date	June 3, 2024		
Institution	University of Jaén		
Department/Center	Organic and Inorganic Chemistry		
Country	Spain	Teleph. number	953-212743
Key words	Natural products chemistry, organic synthesis, bioactive compounds, enzymatic inhibition, antioxidants, fragrances.		

A.2. Previous positions

Period	Position/Institution/Country/Interruption cause
1987-1988	Undergraduate Fellow, University of Granada, Spain (12 months)
1989-1990	Graduate Fellow, Division of Aromatic Chemical Research, Sensient Fragrances Co., Spain (18 months)
1990-1997	Researcher, Division of Aromatic Chemical Research, Sensient Fragrances Co., Spain (76 months). Sensient Fragrances granted me a leave for the care of a child under 7 years of age, from April 1997 until June 1999.
1997-2003	Assistant Professor, University of Jaen, Spain/Profesora Ayudante y Profesora Asociada de Universidad (67 months)
2001	Visiting Lecturer, Wageningen University, The Netherlands (3 months)
2003	Associate Professor, University of Jaen, Spain/Profesora Titular de Universidad

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Chemistry Sciences	University of Granada, Spain	1994
Licensed in Chemistry Sciences	University of Granada, Spain	1988

Part B. CV SUMMARY

My contribution to science has been mainly in four research fields: (a) Fragrance chemistry; (b) Isolation of natural antioxidants; (c) Biological activity of natural products; (d) Synthesis of lactate dehydrogenase inhibitors. The last three fit in the Sustainable Development Goal (SDG)-3 “Health and Well-Being” and equal access to treatments.

My background in the chemistry of fragrances started with my PhD thesis and it was clearly improved by working for six years as the **responsible investigator of the R+D department** of the worldwide company, Sensient Fragrances, Co. (Granada, Spain). I have participated in four **research projects** during my work in this company and in another one during my first years at the University of Jaén, funded by Spanish Ministry of Science and Technology. My collaboration with this company has continued until today and I signed a **research contract** to develop in 2019. For that, two researchers,

one pre-doctoral and other post-doctoral, were hired with the financial support of that company. Morover, I have been the **coordinator** and teacher of a scientific divulgation course on "The world of perfume" for lay persons, for 3 years (2004-2007).
In 2001, during my **research stay** at Wageningen University, The Netherlands, with professor Teris A. van Beek, I started my second research field. I worked on the isolation and identification of antioxidants from natural extracts using an online detection technique of active compounds. When I came back to the University of Jaén, we received **funding** (participating in 5 research projects) and bought a HPLC equipment with a post-column reaction unit to continue with this research. I supervised the stay in our laboratory of several **foreign students**, and supervised **two doctoral thesis** (2008, 2021) on the isolation of antioxidants from pruning wood residues, as a way to give them added value. Some of these antioxidants have been also studied for their antimicrobial and antibiofilm activities against selected foodborne microorganisms, including multi-resistant strains, in collaboration with a research group of microbiology of our university. Regarding this activity, I am **co-investigator** in a recently completed project. Some of the natural products isolated and identified in our researh group have been of interest to other groups and companies from the the medical sphere. In 2007, we isolated a potent antioxidant, Cinnamtannin B-1 (an A-type procyanidin), from laurel wood and from this date until now we have got **cooperation agreements with two international companies** to market this compound as a reference sample. At the same time, we started a successful **collaboration** with a research group of physiology from the University of Extremadura, Spain, and the antiaggregant and antiapoptotic effects in human platelets of cinnamtannin B-1 have been determined. More recently, we have isolated oleocanthal from olive oil, an ibuprofen-like anti-inflammatory natural product that has shown to inhibit the proliferation and migration in breast cancer cells and to induce death preferentially in tumor hematopoietic cells.
Finally, in 2016, I have supervised a **doctoral thesis** with the main goal of synthesizing A-type procyanidin analogues to cinnamtannin B-1 and the evaluation of their biological activity. This was the starting point of our collaboration with Dr. E. Salido (University of La Laguna, Spain) and Dr. M. Díaz-Gavilán (University of Granada, Spain) and our interest in the development of small molecules as lactate dehydrogenase inhibitors as potential **pharmacological treatment for Primary Hyperoxaluria** (PH). Since then we have been committed with PH, and 10 communications to congresses and 9 articles to scientific journals have been presented on synthesis of hLDHA inhibitors and evaluation of their biological activity. Currently, **another doctoral thesis** is being developed on synthesis of *h*LDHA inhibitors. I have been **principal investigator** of two research projects financed by Spanish Ministry of Science, Innovation and Universities (2019-2022) and Ministry of Science and Innovation (2023-2027) on this topic and participate as a tutor researcher in **another related project** presented by an emerging researcher of our group (2022-2023). In order to achieve the selective transport and the specific release of LDH inhibitors in hepatic cells, an useful **collaboration** with professor Manuel Arruebo, from the Aragon Institute of Nanoscience and Materials (University of Zaragoza, Spain), have been established. Thereby, I think I have the expertise and motivation necessary to carry out a new project based on our former results in this field.
In summary, I have participated in 20 funded projects, I have been co-author of 86 articles and 4 patents, my *h*-index is 27 (according to Scopus) and I have approved 5 research periods by ANECA. Since 2015, I am the **responsible investigator** of a group of 9 researchers at the University of Jaen and during this time I have developed skills in leadership, staff planning, budget justification, establishing collaborations and research contracts.

Part C. RELEVANT MERITS

C.1. Publications (10 most relevant ones of the last six years). **CA**: corresponding author

1. I. Díaz, S. Salido, M. Nogueras, J. Cobo (**CA**), **2024**, Synthesis of Ethyl Pyrimidine-Quinolincarboxylates Selected from Vitrual Screening as Enhanced Lactate Dehydrogenase (LDH) Inhibitors, *Int. J. Mol. Sci.*, *25*, 9744.
2. M. Vettorazzi, I. Díaz, E. Angelina, S. Salido, L. Gutierrez, S.E. Alvarez, J. Cobo (**CA**), R.D. Enriz (**CA**), **2024**, Second Generation of Pyrimidin-Quinolone Hybrids Obtained from Virtual Screening Acting as Sphingosine Kinase 1 Inhibitors and Potential Anticancer Agents, *Bioorg. Chem.*, *144*, 107112.
3. A. Dácil-Marrero, J. Ortega-Vidal, S. Salido, L. Castilla, I. Vidal, A. R. Quesada, J. Altarejos, B. Martínez-Poveda, M. A. Medina (**CA**), **2023**, Anti-angiogenic effects of oleacein and oleocanthal: new bioactivities of compounds from extra virgin olive oil, *Biomed. Pharmacother.*, 165: 115234.

4. S. Salido, A. Alejo-Armijo (**CA**), J. Altarejos, **2023**, Synthesis and *h*LDH inhibitory activity of analogues to natural products with 2,8-dioxabicyclo[3.3.1]nonane scaffold, *Int. J. Mol. Sci.*, 24: 9925.
5. A. Alejo-Armijo, C. Cuadrado, J. Altarejos, M. X. Fernandes, E. Salido (**CA**), M. Díaz-Gavilán, S. Salido (**CA**), **2022**, Lactate dehydrogenase A inhibitors with a 2,8-dioxabicyclo[3.3.1]nonane scaffold: A contribution to molecular therapies for primary hyperoxalurias, *Bioorg. Chem.*, *129*, 106127.
6. S. Salido, A. Alejo-Armijo (**CA**), A. J. Parola, V. Sebastián, T. Alejo, S. Irusta, M. Arruebo, J. Altarejos, **2022**, Chitosan derivatives as nanocarriers for *h*LDHA inhibitors delivery to hepatic cells: A selective strategy for targeting primary hyperoxaluria diseases, *Int. J. Pharm.*, *627*, 122224.
7. I. Díaz, S. Salido, M. Nogueras, J. Cobo (**CA**), **2022**, Design and Synthesis of New Pyrimidine-Quinolone Hybrids as Novel *h*LDHA Inhibitors, *Pharmaceuticals*, *15* (7), 792.
8. M. D. Moya-Garzón, J. A. Gómez-Vidal, A. Alejo-Armijo,…..S. Salido (**CA**), M. Díaz-Gavilán (**CA**), **2021**, Small molecule-based enzyme inhibitors in the treatment of primary hyperoxalurias, *J. Pers. Med.*, *11*, 74.
9. A. Alejo-Armijo, S. Salido (**CA**), J. Altarejos, **2020**, Synthesis of A-Type Proanthocyanidins and Their Analogues: A Comprehensive Review. *J. Agric. Food Chem. 68* (31), 8104–8118.
10. A. Alejo-Armijo, A. Tello-Abolafia, S. Salido (**CA**), J. Altarejos, **2019**, Phenolic compounds in laurel wood: a new source of proanthocyanidins, *J. Wood Chem.Technol*. *39*, 436–453.

C.2. Congress

1. S. Salido, A. Alejo-Armijo, C. Cuadrado, J. Altarejos, M. X. Fernandes, E. Salido, M. Díaz-Gavilán, Synthesis and evaluation of molecules with a 2,8-dioxabicyclo[3.3.1]nonane scaffold as human lactate dehydrogenase a (*h*LDHA) inhibitors, XIV International Hyperoxaluria Conference, 29/09/2022, Berlín (Germany). Poster.
2. F. Arias, J.A. Gómez-Vidal, F. Franco-Montalbán, E. Salido, S. Salido, M. Díaz-Gavilán, Flavonoids for the treatment of primary hyperoxalurias. Preliminary results, XIV International Hyperoxaluria Conference, comunicación en cartel, 29/09/2022, Berlín (Germany). Poster.
3. S. Salido, A. Alejo-Armijo, J. Ortega-Vidal, J. Cobo, J. Altarejos, Synthesis of potential LDHA inhibitors with a 2-oxa-8-azabicyclo[3.3.1]nonane scaffold, XX National Meeting of the Spanish Society of Medicinal Chemistry (SEQT), 19/06/2022, Santiago de Compostela (Spain). Poster.
4. I. Díaz, S. Salido, M. Nogueras, J. Cobo, Pyrimidine-quinolone U-shape linked hybrids in the search of novel LDHA inhibitors, XX National Meeting of the Spanish Society of Medicinal Chemistry (SEQT), 19/06/2022, Santiago de Compostela (Spain). Poster.

C.3. Research projects

1. Reference: PID2022-141783OB-C22.
Title: Synthesis of optimized lactate dehydrogenase A inhibitors, biological evaluation and encapsulation for oral administration.
Funding institution: Spanish Ministry of Science and Innovation.
Lifetime: September 2023 till August 2027.
Amount: 162.500 €
My role: Principal investigator.

2. Reference: FEDER-UJA-1380682.
Title: Rational design of inhibitors of the LDHA enzyme for the treatment of primary hyperoxaluria: Synthesis and micellar encapsulation.
Funding institution: Andalusian Department of Economy, Knowledge, Businesses and University.
Principal investigator: Alfonso Alejo-Armijo (University of Jaen, Spain).
Lifetime: December 2021 till December 2023.
Amount: 100.000 €
My role: Co-investigator.

3. Reference: FEDER-UJA-1380669.
Title: Synthesis of analogues to natural polyphenols as new food preservatives: Antimicrobial and antioxidant activities.
Funding institution: Andalusian Department of Economy, Knowledge, Businesses and University.
Principal investigator: Elena Ortega (University of Jaen, Spain).

Lifetime: January 2021 till June 2023.
Amount: 62.633 €
My role: Co-investigator.

4. Reference: RTI2018-098560-B-C22.
Title: Development of LDHA inhibitors as a new strategy for the treatment of primary hyperoxaluria.
Funding institution: Spanish Ministry of Science, Innovation and Universities.
Lifetime: January 2019 till December 2022.
Amount: 84.700 €
My role: Principal investigator.

C.4. Contracts, technological or transfer merits

Contracts

1. Title: Supply of antioxidant cinnamtannin B-1 to Adipogen AG Branch Liestal.
Company: Adipogen AG Branch Liestal
Principal investigator: Sofía Salido Ruiz (University of Jaén)
Lifetime:02/12/2016-01/10/2020
Amount: 5.750 €

2. Title: Synthesis, purification and structure elucidation of Javanol
Company: Sensient Fragrances, S.A.U.
Principal investigator: Sofía Salido Ruiz (University of Jaén)
Lifetime: 11/03/2019-10/07/2019
Amount: 12.032 €

Patents

1. Inventors: S. Salido, M. Pérez-Bonilla, P. Linares-Palomino, M. Nogueras, A. Sánchez y J. Altarejos
Reference: Spanish Patent ES2386860
Title: Procedure for the extraction of olive wood to get extracts enriched in compounds of food interest.
Priority country: Spain
Priority date: 07/02/2011
Patent holder: University of Jaén

2. Inventors: L. Chapado, P. J. Linares-Palomino, S. Salido, M. Nogueras, A. Sánchez, J. Altarejos
Reference: International Patent WO2008/092981
Title: Preparation of a new odorant with sandalwood fragrance.
Priority country: Spain
Priority date: 31/01/2007
Patent holder: University of Jaén

3. Inventors: J. M. Castro, S. Salido, J. Altarejos, M. Nogueras y A. Sánchez
Reference: Spanish Patent ES2238003
Title: Procedures for obtaining enantiomerically pure and racemic norambreinolide.
Priority country: Spain
Priority date: 22/01/2004
Patent holder: University of Jaén

Fecha del CVA	22/10/2024

Parte A. DATOS PERSONALES

Nombre	José Manuel		
Apellidos	Botubol Ares		
Sexo		Fecha de Nacimiento	
DNI/NIE/Pasaporte			
URL Web			
Dirección Email	josemanuel.botubol@uca.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-2312-612X		

1. ACTIVIDAD INVESTIGADORA, DE TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1. PROYECTOS Y CONTRATOS DE INVESTIGACIÓN Y TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1.1. Proyectos

1 **Proyecto**. Desarrollo de diterpenos con esqueleto de latiranos como componentes de fármacos para el tratamiento de enfermedades de deterioro congnitivo. 2022-104 / PN / PE-GENERACIÓN-CONOCIMIENTO. (Universidad de Cádiz). 01/09/2023-31/08/2026. 100 €.

2 **Proyecto**. Desarrollo de diterpenos como agentes promotores de la regeneración neuronal. Junta de Andalucía Consejería de Conocimiento, Investigación y Universidad. (Universidad de Cádiz). 01/01/2020-31/12/2022. 119,8 €.

3 **Proyecto**. RTI2018-099908-BC22 "Diterpenos como nuevos modelos de fármacos en terapias de regeneración neuronal",. Ministerio de Economía y Competitividad (MINECO). José Manuel Botubol Ares. (Universidad de Cádiz). 01/01/2019-31/12/2022. Miembro de equipo.

4 **Proyecto**. 3. BFU2015-68652-R, "Regeneración de lesiones traumáticas en el sistema nervioso central mediante moduladores de actividad de PKC". Ministerio de Economía y Competitividad (MINECO). José Manuel Botubol Ares. (Universidad de Cádiz). 01/01/2016-31/08/2019. Miembro de equipo.

5 **Proyecto**. PR2017-047, DESARROLLO DE REACCIONES SELECTIVAS MEDIADAS POR COMPLEJOS DE RUTENIO DE TIPO SEMI-SANDWICH PARA LA SÍNTESIS DE COMPUSTOS BIOLÓGICAMENTE ACTIVOS. Universidad de Cádiz. José Manuel Botubol Ares. (Universidad de Cádiz). 01/09/2017-28/02/2019. 4.000 €. Investigador principal.

6 **Proyecto**. AGL2009-13359-C02-01 "Characterization of new molecular targets from Botrytis cinerea and Colletotrichum acutatum proteome and genome data. Developing selective fungicides to control these phytopathogenic fungi".. Ministerio de Ciencia e Innovación S(MICINN). José Manuel Botubol Ares. (Universidad de Cádiz). 01/12/2009-31/12/2012. Miembro de equipo.

7 **Proyecto**. P07-FQM-02689 "Fitoprotectores y detección temprana de infecciones por hongos fitopatógenos: Desarrollo de resistencia a la infección por Botrytis y Colletotrichum en cultivos de interés agroalimentario".. Proyecto de excelencia Junta de Andalucía. José Manuel Botubol Ares. (Universidad de Cádiz). 31/01/2008-31/12/2012. Miembro de equipo.

1.2. RESULTADOS Y DIFUSIÓN DE LA ACTIVIDAD INVESTIGADORA Y DE TRANSFERENCIA E INTERCAMBIO DE CONOCIMIENTO

1.2.1. Actividad investigadora

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Artículo científico**. Felipe Escobar-Montaño; Antonio J. Macías-Sánchez; José M. Botubol-Ares; Rosa Durán-Patrón; Rosario Hérnandez-Galán. 2024. A Biomimetic Approach to Premyrsinane-Type Diterpenoids: Exploring Microbial Transformation to Enhance Their Chemical Diversity. Plants. MDPI. 13-6, pp.842. https://doi.org/10.3390/PLANTS13060842

2 **Artículo científico**. Felipe Escobar-Montaño; Ricardo Gómez-Oliva; Abdellah Ezzanad; et al; Rosario Hernández-Galán. 2024. Effect of lathyrane-type diterpenoids in neural stem cell physiology: Microbial transformations, molecular docking and dynamics studies. Bioorganic Chemistry. Elsevier. 153, pp.107769. https://doi.org/10.1016/j.bioorg.2024.107769

3 **Artículo científico**. Felipe Escobar Montaño; Victoria Eugenia González Rodríguez; Antonio José Macías Sánchez; José Manuel Botubol Ares; Rosa María Durán Patrón. 2024. Enhancing Structural Diversity of Lathyrane Derivatives through Biotransformation by the Marine-Derived Actinomycete Streptomyces puniceus BC-5GB.11. International Journal of Molecular Sciences. MDPI. 25, pp.2289.

4 **Artículo científico**. Inés Muela-Zarzuela; Juan Miguel Suarez-Rivero; Daniel Boy-Ruiz; et al; Mario D. Cordero. 2024. The NLRP3 inhibitor Dapansutrile improves the therapeutic action of lonafarnib on progeroid mice. Aging Cell. Wiley. 23-9, pp.e14272. https://doi.org/10.1111/acel.14272

5 **Artículo científico**. María Jesús Durán Peña; José Manuel Botubol Ares; Isidro González Collado; Rosario Hernández Galán. 2023. Degraded limonoids: biologically active limonoid fragments re-enhancing interest in Meliaceae and Rutaceae sources. Phytochemistry Reviews. springer. 22, pp.695-741.

6 **Artículo científico**. Zakaria Moutaoukil; Emmanuel Serrano Díez; Isidro González Collado; Manuel Jiménez Tenorio; José Manuel Botubol Ares. 2022. N-Alkylation of organonitrogen compounds catalyzed by methylene-linked bis-NHC half-sandwich ruthenium complexes. Organic & Biomolecular Chemistry. 20, pp.831-839. https://doi.org/10.1039/D1OB02214H

7 **Artículo científico**. Rachid Chahboun; José Manuel Botubol Ares; María Jesús Durán Peña; Fermín Jiménez; Ramón Álvarez-Manzaneda; Enrique Álvarez-Manzaneda. 2021. Deconjugative α-Alkylation of Cyclohexenecarboxaldehydes: An Access to Diverse Terpenoids. Journal of Organic Chemistry. 86, pp.8742-8754. https://doi.org/10.1021/acs.joc.1c00560

8 **Artículo científico**. José Manuel Botubol Ares; Safa Cordón Ouahhabi; Zakaria Moutaoukil; Isidro González Collado; Manuel Jiménez Tenorio; María del Carmen Puerta Vizcaino; Pedro Valerga Jiménez. 2021. Methylene-Linked Bis-NHC Half-Sandwich Ruthenium Complexes: Binding of Small Molecules and Catalysis toward Ketone Transfer Hydrogenation. Organometallics. 40, pp.792-803. https://doi.org/10.1021/acs.organomet.1c00045

9 **Artículo científico**. Abdellah Ezzanad; Ricardo Gómez Oliva; Felipe Escobar Montaño; et al; Rosario Hernández Galán. 2021. Phorbol Diesters and 12-Deoxy-16-hydroxyphorbol 13,16-Diesters Induce TGFa Release and Adult Mouse Neurogenesis. Journal of Medicinal Chemistry. 64, pp.6070-6084. https://doi.org/10.1021/acs.jmedchem.1c00156

10 **Artículo científico**. M. Eugenia Flores-Giubi; (2/9) José M. Botubol-Ares; María J. Durán-Peña; et al; Rosario Hernández-Galán. 2020. Bond reactivity indices approach analysis of the [2+2] cycloaddition of jatrophane skeleton diterpenoids from Euphorbia gaditana Coss to tetracyclic gaditanone. Phytochemistry. Elsevier. 180, pp.112519. https://doi.org/10.1016/j.phytochem.2020.112519

11 **Artículo científico**. Marta Ferrera-Suanzes; Victoria Prieto; Antonio J. Medina-Olivera; et al; María J. Durán-Peña; (4/9) José Manuel Botubol-Ares. 2020. Synthesis of Degraded Limonoid Analogs as New Antibacterial Scaffolds against Staphylococcus aureus. Antibiotics. MDPI. 9, pp.488. https://doi.org/10.3390/antibiotics9080488

12 **Artículo científico**. (1/5) José Manuel Botubol Ares; María Jesús Durán Peña; James Hanson; Rosario Hernández Galán; Isidro González Collado. 2018. Cp2Ti(III)Cl and analogues as sustainable templates in Organic Synthesis. Synthesis. Thieme. 50, pp.2163-2180. https://doi.org/10.1055/s-0036-1591986

13 **Artículo científico**. María Eugenia Flores Giubi; María Jesús Durán Peña; (3/7) José Manuel Botubol Ares (AC); Felipe Escobar Montaño; David Zorrilla; Antonio José Macías Sánchez; Rosario Hernández Galán. 2017. Gaditanone: An unprecedented diterpenoid skeleton isolated from Euphorbia gaditana. Journal of Natural Products. ACS. 80, pp.2161-2165. https://doi.org/10.1021/acs.jnatprod.7b00332

14 **Artículo científico**. María Jesús Durán Peña; María Eugenia Flores Giubi; (3/8) José Manuel Botubol Ares; Felipe Escobar Montaño; Antonio José Macías Sánchez; Luis Echeverri; Isidro González Collado; Rosario Hernández Galán. 2017. Lathyrane diterpenes from the latex of Euphorbia laurifolia. Natural Product Communications. pp.671-673. https://doi.org/10.1177/1934578X1701200507

15 **Artículo científico**. (1/4) José Manuel Botubol Ares; James Hanson; Rosario Hernández Galán; Isidro González Collado. 2017. Mild epoxidation of allylic alcohols catalyzed by Titanium(III) complexes: Selectivity and mechanism. ACS Omega. ACS. 2, pp.3083-3090. https://doi.org/10.1021/acsomega.7b00386

16 **Artículo científico**. Durán-Peña, M. J.; Flores Giubi, E.; (3/7) Botubol, J. M.; Harwood, L. M.; Collado, I. G.; Macias-Sanchez, A. J.; Hernández-Galán, R.2016. Chemoselective and stereoselective lithium carbenoid mediated cyclopropanation of acyclic allylic alcohols. Organic & Biomolecular Chemistry. Royal Society of Chemistry. 14, pp.2731-2741. https://doi.org/10.1039/C5OB02617B

17 **Artículo científico**. María Jesús Durán Peña; (2/5) José Manuel Botubol Ares (AC); James R. Hanson; Rosario Hernández Galán; Isidro González Collado. 2016. Efficient O-acylation of alcohols and phenol using Cp2TiCl as a reaction promoter. European Journal of Organic Chemistry. Royal Society of Chemistry. pp.3584-3591. https://doi.org/10.1002/ejoc.201600496

18 **Artículo científico**. Durán-Peña, M. J.; (2/5) Botubol, J. M.; Hanson, J; Collado, I. G.; Hernández-Galán, R.2015. Biological activity of natural sesquiterpenoids containing a gem-dimethylcyclopropane subunit. Natural Pruduct Reports. Royal Society Chemistry. 32, pp.1236-1248. https://doi.org/10.1039/C5NP00024F

19 **Artículo científico**. (1/6) Botubol-Ares, J. M.; Duran-Peña, M. J.; Hernández-Galán, R.; Harwood, L. M.; Collao, I. G.; Antonio José Macías Sánchez. 2015. Diastereoselective and enantioselective preparation of nor-mevaldic acid surrogates through desymmetrisation methodology. Enantioselective synthesis of (+) and (-) nor-mevalonic lactones. Tetrahedron. Elsevier. 71, pp.7531-7538. https://doi.org/10.1016/j.tet.2015.08.010

20 **Artículo científico**. (1/6) José Manuel Botubol Ares; María Jesús Durán Peña; Antonio José Macías Sánchez; James Hanson; Isidro González Collado; Rosario Hernández Galán. 2015. The synthesis of 3-hydroxy-2,4,8-trimethyldec-8-enolides and an approach to 3,4-dihydroxy-2,4,6,8-tetramethyldec-8-enolide. Organic & Biomolecular Chemistry. Royal Society of Chemistry. 13, pp.465-476. https://doi.org/10.1039/C4OB01792G

21 **Artículo científico**. Durán-Peña, M. J.; (2/5) Botubol, J. M.; Hanson, J; Collado, I. G.; Hernández-Galán, R.2015. Titanium carbenoid-mediated cyclopropanation of allylic alcohols: Selectivity and mechanism. Organic & Biomolecular Chemistry. Royal Society Chemistry. 13, pp.6325-6332. https://doi.org/10.1039/C5OB00544B

22 **Artículo científico**. Durán-Peña, M. J.; (2/5) Botubol, J. M.; Hanson, J; Collado, I. G.; Hernández-Galán, R.2015. Unexpected mild protection of alcohols as 2-O-THF and 2-O-THP ethers catalysed by Nugent's reagent reveal an intriguing role of the solvent in the single electron transfer reaction. European Journal of Organic Chemistry. Wiley. pp.6333-6340. https://doi.org/10.1002/ejoc.201500869

23 **Artículo científico**. (1/6) Botubol-Ares, J. M.; Duran-Peña, M. J.; Hernández-Galán, R.; Harwood, L. M.; Collao, I. G.; Antonio José Macías Sánchez. 2015. nor-Mevaldic acid surrogates as selective antifungal agents leads Botrytis cinerea. Enantioselective preparation of 4-hydroxy-6-(1-phenylethoxy)tetrahydro-2H-pyran-2-one. Bioorganic & Medicinal Chemistry. Elsevier. 23, pp.3379-3387. https://doi.org/10.1016/j.bmc.2015.04.048

24 **Artículo científico**. Durán-Peña, M. J.; (2/4) Botubol, J. M.; Collado, I. G.; Hernández-Galán, R.2014. Biologically active Diterpenes containing a gem-dimethylcyclopropane subunit: An intriguing source of PKC modulators. Natural Pruduct Reports. Royal Society Chemistry. 31, pp.940-952. https://doi.org/10.1039/C4NP00008K

25 **Artículo científico**. (1/6) José Manuel Botubol Ares; María Jesús Durán Peña; Antonio José Macías Sánchez; James Hanson; Isidro González Collado; Rosario Hernández Galán. 2014. Exploring mutasynthesis to increase structural diversity in the synthesis of highly oxygenated polyketides. Organic & Biomolecular Chemistry. Royal Society of Chemistry. 12, pp.5304-5310. https://doi.org/10.1039/C4OB00717D

26 **Artículo científico**. (1/6) José Manuel Botubol Ares; María Jesús Durán Peña; Antonio José Macías Sánchez; James Hanson; Isidro González Collado; Rosario Hernández Galán. 2014. The asymmetric total synthesis of cinbotolide. A revision of the original structure. The Journal of Organic Chemistry. American Chemistry Society. 79, pp.11349-11358. https://doi.org/10.1021/jo501471m

27 **Artículo científico**. (1/4) Botubol-Ares, José Manuel; Durán-Peña, María Jesús; González-Collado, Isidro; Hernández-Galán, Rosario. 2013. Chemical genetics strategies for identification of molecular targets. Phytochemistry reviews (Print). 12, pp.895-914. https://doi.org/10.1007/s11101-013-9312-6

28 **Artículo científico**. (1/4) Botubol-Ares, José Manuel; Macías-Sánchez, Antonio José; González-Collado, Isidro; Hernández-Galán, Rosario. 2013. Stereoselective Synthesis and Absolute Configuration Determination of Xylariolide A. European Journal of Organic Chemistry. pp.2420-2427. https://doi.org/10.1002/ejoc.201201526

29 **Artículo científico**. Ramírez-Fernández, Jacino; (2/6) Botubol-Ares, José Manuel; Aleu, J.; Bustillo, A. J.; Collado, I. G.; Hernández-Galán, R.2011. Botcinolide/Botcinin: Asymmetric synthesis of the key fragments. Natural Products communications. 6, pp.443-450. https://doi.org/10.1177/1934578X1100600404

1.2.2. Transferencia e intercambio de conocimiento y actividad de carácter profesional

1 DERIVADOS DE 12-DESOXIFORBOLES Y USOS DE LOS MISMOS Reg 29/12/2020 Conc 04/12/2023.

Actividad de carácter profesional

Profesor Titular de Universidad: Universidad de Cádiz. 2022- actual.

2 **Profesor Ayudante Doctor:** Universidad de Cádiz. 14/02/2020.

3 **Profesor Sustituto Interino:** Universidad de Cádiz. 26/09/2016. (3 años - 4 meses - 17 días). Interino/a.

4 **Profesor Sustituto Interino:** Universidad de Cádiz. 20/04/2016. (2 meses - 25 días). Interino/a.

5 **Investigador Post-doctoral:** Universidad de Nottingham. 15/06/2015. (2 meses).

6 **Investigador Post-doctoral:** Universidad de Cádiz. 05/12/2012. (1 año).

7 **Becario pre-doctoral:** Universidad de Cádiz. 01/06/2008. (4 años).

1.3. ESTANCIAS EN UNIVERSIDADES Y CENTROS DE INVESTIGACIÓN

1.3.1. Estancias

1 **Estancia:** Universidad de Granada. (España). 01/01/2019-15/02/2019.

2 **Estancia:** Universidad de Granada. (España). 01/06/2018-30/09/2018.

3 **Estancia:** University of Nottingham. (Reino Unido). 28/06/2017-18/09/2017.

4 **Estancia:** University of Nottingham. (Reino Unido). 15/06/2015-15/08/2015.

2. ACTIVIDAD DOCENTE

2.1. EXPERIENCIA DOCENTE

2.1.1. Dedicación docente (se acredita con el certificado que se adjunta en la sede electrónica de ANECA)

2.2. EVALUACIÓN DE LA CALIDAD DOCENTE E INNOVACIÓN

Evaluación mediante certificado/s (DOCENTIA) que se adjuntan en la sede de ANECA

2.2.1. Calidad de la actividad docente
Evaluación mediante autoinforme que se adjunta en la sede de ANECA

CURRICULUM VITAE ABREVIADO (CVA)

Part A. PERSONAL INFORMATION

First name	Yolanda		
Family name	Vida		
Gender (*)		Birth date	
Social Security, Passport, ID number			
e-mail	yolanda.vida@uma.es	URL Web: www.ldbf.uma.es	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-7004-4629	

(*) Mandatory

A.1. Current position

Position	Associate Professor (*Profesor Titular de Universidad*)		
Initial date	21/12/2017		
Institution	Universidad de Malaga (UMA)/IBIMA-plataforma-BIONAND		
Department/Center	Organic Chemistry / Faculty of Science		
Country	Spain	Teleph. number	+34 953137384 / 680809392
Key words	Organic Chemistry. Molecular Recognition. Dendrimers. Nanoscience. Nanomedicin. Sensors and Biosensors. Fluorescents Systems. Multiphotonics Processes. Molecular and Supramolecular Photochemistry.		

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

Period	Position/Institution/Country/Interruption cause
2013-2017	*Profesora Contratada Doctora*, Organic Chemistry,UMA/Spain
2010-2013	*Profesora Ayudante Doctora*, Organic Chemistry,UMA/Spain/ *2010-2011; Research activity interrupted for 9 month / Maternity leave*.
2007-2010	*Ayudante de facultad*/Organic Chemistry,UMA/Sapin/ *2008-2009; Research activity interrupted for 9 month / Maternity leave*.
2006-2008	Postdoctoral grant (Fundación Ramón Areces)/Physikalisches Institut-Westfälische Wilhelms-Universität Münster/Germany. P.I. Luisa De Cola
2006	Researcher in UNI-NANOCUPS (EU Marie Curie, Research Training Network, MRTN-CT-2003-504233)/Physikalisches Institut-Westfälische Wilhelms-Universität Münster/Germany. P.I. Luisa De Cola
2005-2006	Researcher in FQM-209-Photochemistry and Natural Products project/Organic Chemistry,UMA/Spain
2001-2005	Research grant “Formación de Profesorado Universitario (FPU)”, (B.O.E. 21/11/2000)/Organic Chemistry,UMA/Spain
1999-2000	Research grant (B.O.J.A. Nº 109, 18/09/1999)/Organic Chemistry, UMA/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Chemistry	Universidad de Malaga/Spain	2006
Master Thesis	Universidad de Malaga/Spain	2002
Chemistry Degree	Universidad de Malaga/Spain	1999

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

I obtained my PhD in Chemistry (2006) at the University of Malaga (UMA) with **FPU** funding, where I studied the synthesis and properties of Photoactive Cyclophanes, under the supervision of Prof. R. Suau and Prof. E. Perez-Inestrosa. During this period (2003) I was visiting researcher in the *Laboratoire de Chimie Organique et Organometallique* (LCOO) of the University of Bordeaux-1 (CNRS-UMR 5802), where I worked on Supramolecular (Photo)Chemistry. I started a **2-year postdoctoral stay** as a researcher in the group of Prof. L. De Cola in the *Physikalisches Institut*, Westfälische Wilhelms-Universität Münster, Germany, from 2006 to 2008. During this period, I studied the photophysical properties of metallic complexes and the synthesis, characterization and functionalization of nanostructures

(micelles, zeolites and silica nanoparticles). During that period (**2007**), I obtained a position as an **assistant professor** in the Dept. of Organic Chemistry at UMA (I obtained a licence from the UMA to stay in Germany for one year to complete 2-years of postdoctoral studies). Since then I have combined my teaching with my research activities. I have obtained the different accreditations from ANECA (*Profesor Ayudante Doctor* (**2010**), *Profesor Contratado Doctor* (**2012**) and *Profesor Titular de Universidad* (**2013**)) that have enabled me to obtain the different positions at UMA (despite having the accreditation, the UMA put the post of *Profesor Titular* out to public competition in **2017)**. Currently I am part of the Research Group (RG) "Biomimetic Dendrimers and Photonics Laboratory". The RG is part of the Organic Chemistry Dept. of UMA and the Biomedical Research Institute of Malaga-IBIMA (www.ibima.es), accredited as a Research Institute by the ISCIII, with laboratory facilities in both, the Organic Chemistry Dept. and the *IBIMA-Plataforma Bionand* research building. The main research lines of the RG are two. One of them is focussed in the synthesis, characterization and functionalization of dendrimeric structures for biomedical applications. The second deals with the development of fluorescent markers (that can work in the NIR and/or under the two-photon excitation regime) for the monitorization of these types of processes. Although my research involves both lines, I am more involved in the first research line, where our studies have led to the development of new models of dendrimeric structures based on amide bonds, and three patents. I have participated in 24 research projects, regional, national and European funding, participating as researcher and 2 participating as principal researcher (P.R.). Since its constitution, the RG has been part of the Research Network of ASMA RESEARCH NETWORK, ADVERSE AND ALLERGIC REACTIONS (ARADYAL) (RD16 / 0006/0012) of ISCIII. I also participate in the CTQ2015 Biological Photochemistry Network, in the COST Dendrimers in Biomedical Applications-TD0802 action and in the NANOMEDICINE DOCTORAL PROGRAM - COFUND (NanoMedPhD). No 713721 (European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement). I participate in two projects financed by the Center for Biomedical Research in Network. Bioengineering, Biomaterials and Nanomedicine-Ciber-bbn, as an Associated Group for Intramural Project (a third party requested). I have published 42 research papers, 2 book chapters and registered five patents. Author of more than 80 contributions to national and international conferences (17 plenary or guest communications). I am a reviewer of journals in the area of Chemistry and biomedicine. I have directed 4 Doctoral Theses (Doctorate with Quality Mention, International Doctorate). Former students are enjoying now international postdoctoral stays or are responsible researchers in the technology-based company (EBT) Bioherent, S.L., closely related to our research *Sexenios*: 3 (Research activity evaluated 2002-2008, 2009-2014 and 2015-2020). *Complementos autonomicos*: 4 *Tramos* (including research, teaching and management).
I have been part of the organizing committee of 5 international research meetings and 1 national meeting as secretary. I have participated in seven Educational Innovation Projects at UMA. Academic positions: *Vicesecretaria de la Facultad de Ciencias*-UMA (2014-2016), *Secretaria de la Facultad de Ciencias*-UMA (2016), *Coordinadora académica del Programa de Doctorado en Química, Tecnología Química, Materiales y Nanotecnología*-UMA (since 2022).Dissemination activities: Talks in different institutes and schools, participation in science meetings (e.j. https://encuentrodeciencias.iesbezmiliana.es/conferencias/), Pint of Science talks, UMA-*Divulga* and "*Los Nobel contados por la UMA*" (https://www.youtube.com/watch?v=RD-4tRaj1ns).

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

C.1. Publications *(see instructions)*

1.- S. Calvo-Serrano, …., **Y. Vida (CA)**, C. Mayorga, M. J. Torres (9/11). New approaches for Basophil Activation Tests employing Dendrimeric Antigen-Silica Nanoparticle composites. *Pharmaceutics*, **2024**, *16*, 1039.

2.- S. Fernández-Palacios, E. Matamoros, I. Morato, J. T. López Navarrete, M. C. Ruiz Delgado, **Y. Vida (CA)** and E. Perez-Inestrosa (**2023**). New Insights into Acylhydrazones E/Z isomerization: An Experimental and Theoretical Approach. *International Journal of Molecular Sciences*, *24 (19)*, 14739. DOI: 10.3390/ijms241914739

3.- I. Casanellas, A. Lagunas (CA), **Y. Vida**,….,J. Samitier (3/9). **2022**. Nanoscale ligand density modulates gap junction intercellular communication of cell condensates during chondrogenesis. *Nanomedicine*, *17*, 775.

4.- R. Fernandez-Santamaria, G. Bogas, M.I. Montañez,..**Y. Vida**,… C. Mayorga (CA), M.J. Torres (11/14). **2022**. Synthetic antigenic determinants of clavulanic acid induce dendritic cell maturation and specific T cell proliferation in patients with immediate hypersensitivity reactions. *Allergy*, *77*, 3070.
5.- V. Gil-Ocaña, I. M. Jimenez, C. Mayorga,...**Y. Vida (CA)**, M.J. Torres, E. Perez-Inestrosa (7/9). **2021**. Multiepitope Dendrimeric Antigen-Silica particle composites as nano-based platforms for specific recognition of IgEs. *Frontiers in Immunology*, *12*, 750109. DOI: 10.3389/fimmu.2021.750109.
6.- A. Morgado, F. Nájera, A. Lagunas, J. Samitier, **Y. Vida (CA)**, E. Perez-Inestrosa. **2021**. Slightly congested amino terminal dendrimers. Amide-based stable structures with large-scale synthesis. *Polymer Chemistry* **2021**, *12(36)*, 5168. DOI: 10.1039/D1PY00667C.
7.- C. Mayorga, M.I. Montañez, F. Najera,…, **Y. Vida (CA)**, E. Perez-Inestrosa (9/10). **2021**. The Role of Benzylpenicilloyl Epimers in Specific IgE Recognition. *Frontiers in Pharmacology*, *12*, Article 585890. DOI: 10.3389/fphar.2021.585890.
8.- N. Molina, A. González, D. Monopoli, B. Mentado, J. Becerra, L. Santos-Ruiz, **Y. Vida (CA)**, E. Perez-Inestrosa. **2020**. Dendritic Scaffold onto Titanium Implants. A Versatile Strategy Increasing Biocompatibility. *Polymers***,** *12*, 770. DOI: 10.3390/polym12040770.
9.- M.I. Sánchez, Y. Vida, E. Pérez-Inestrosa, J.L. Mascareñas, M.E. Vázquez, A. Sugiura, J. Martínez-costas (CA). **2020**. MitoBlue as a tool to analyze the mitochondria-lysosome communication. *Sci Rep.*, *10*, 3528. DOI: 10.1038/s41598-020-60573-7.
10.- N. Molina, F. Nájera, J.A. Guadix, J.M. Perez-Pomares, **Y. Vida (CA)**, E. Perez-Inestrosa. **2019**. Synthesis of Amino Terminal Clicked dendrimers. Approaches to the application as a biomarker. *J. Org. Chem.*, *84(16)*, 10197-10208. DOI: 10.1021/acs.joc.9b01369.
11.- N. Molina, M. Cnudde, J.A. Guadix, J.M. Perez-Pomares, C. Strassert, **Y. Vida (CA)**, E. Perez-Inestrosa. **2019**. A platinum-doped dendritic structure as a phosphorescent label for bacteria in two-photon excitation microscopy. *ACS Omega*, *4(8)*, 13027-13033. DOI: 10.1021/acsomega.9b00639.

C.2. Congress.

Invited Conferences: **1.-** Dendrimers in biomedicine. Design of slightly congested amino terminal dendrimers for biomedical applications. X Mediterranean Organic Chemistry Meeting. Valencia (Spain). 2022. **2.-** *Diseño de dendrímeros amino-terminales basados en enlaces tipo amidas. Estructuras con menor repulsión estérica y síntesis a gran escala*. *Encuentro sobre Dendrímeros* (EDEN VIII). Alcalá de Henares, Madrid (Spain). 2022. **3.-** *Diseño y Síntesis de Nuevos Dendrímeros y Dendrones.Aplicaciones en Regeneración Tisular*. *Sexto Encuentro sobre Dendrímeros* (EDEN 6). Sevilla (España). 2018.
Oral Conferences: **4.-** Dendrimers as a powerfull tool in biomedicine. Applications in tissue regeneration processes and as biomarkers. V GEQB ChemBio Group Meeting. Granada (Spain). 2020. **5.-** Pt(II)-dendrimers as bio-imaging marker for bacteria in two-photon excitation microscopy. IIth International Dendrimer Svmposium. Madeira (Portugal). 2019. **6.-** RGD peptide on Dendrimer surfaces Affects Mesenchymal Stem Cells Adhesion. III Biennial Meeting of the Chemical Biology Group. Madrid (España). 2016. **7.-** One and Two Photons Excitation of Aminonaphthalimide-BODIPY Dyads: Biological Application. XXV IUPAC Symposium on Photochemistry. Bordeaux (Francia). 2014. **8.-** Joining Dendrimers and Nanomaterials: An Innovative Approach for IgE Quantification. 8th International Dendrimer Symposium (IDS-8). Madrid (Spain). 2013. **9.-** Photoarticulable Dendrimers Based On Ligth Switcheable Building Blocks. XXIV IUPAC Symposium on Photochemistry. Coimbra (Portugal). 2012. **10.-** Functionalized fluorescent nanomaterials. Applications in diagnostics. XXIII IUPAC Symposium on Photochemistry. Ferrara (Italy). 2010.

C.3. Research projects.

1.- Sistemas Multivalentes y Marcadores Luminiscentes para Aplicaciones Biomedicas **(**PID2022-136705NB-I00). Ministerio de Ciencia, Innovación y Universidades. 01/09/**2023**-31/08/**2025**. 193.750€. IP: Ezequiel Pérez-Inestrosa y Yolanda Vida.
2.- *Diseño y desarrollo de macromoléculas dendriméricas como vectores de administración génica*. Plan Propio del Instituto de Investigación Biomédica de Málaga y Plataforma en Nanomedicina (IBIMA. Plataforma BIONAND). 4000€. IP: Yolanda Vida.
3.- *Preparación, Funcionalización Química y Validación Clínica de Un Biosensor Fotónico Integrado de Bajo Coste Para la Detección de Anticuerpos* (**PY20_00384**). Consejeria de Transformacion Economica, Industria, Conocimiento y Universidades. Junta de Andalucia. 01/01/**2021**-31/12/**2022**. 90500 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).

4.- Nanodiagnosis for Betalactam Hypersensitivity-DrNanoDAll (EURONANOMED 2019-086; H2020). MICIU under the frame of EuroNanoMed II [Ministerio de Ciencia e Innovación: Programación Conjunta Internacional: Programa **EuroNanoMed 2019** (**PCI2019-111825-2**)]. 01/01/**2020**-30/06/**2024**. 149.640€. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).
5.- *Dendrimeros Biomimeticos y Sistemas Bifotonicos para Nanomedicina* (**PID2019-104293GB-I00**). Ministerio de Ciencia, Innovación y Universidades. 01/01/**2020**-31/12/**2022**. 114.950€. IP: Ezequiel Pérez-Inestrosa y Francisco Nájera (Y.V. researcher).
6.- *Nuevos Marcadores Fluorescentes para microscopía multifotónica. Aplicaciones en regeneración tisular y diagnóstico* (**UMA18-FEDERJA-007**). Consejería de Economía y Conocimiento. JuntA de Andalucia. De 01/01/**2020**-31/12/**2021**. 64.028,64€. IP: Ezequiel Pérez-Inestrosa y Francisco Nájera (Y.V. researcher).
7.- *Red De Investigación De Asma, Reacciones Adversas y Alérgicas-ARADYAL* (**RD16/0006/0012**). ISCIII. De 01/01/**2017** a 31/12/**2023**. 109.312,50 €. IP: Ezequiel Perez-Inestrosa. Coordinador: M J Torres (Y.V. researcher).
8.- *Desarrollo de Nuevos Nanobiosensores para el Diagnostico de Reacciones Adversas A Medicamentos* (**PI-0250-2016**). Consejería de Salud-Junta de Andalucía. 01/01/**2017**-31/12/**2019**. 57.500 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).
9.- *Nuevos dendrimeros y marcadores fluorescentes para aplicaciones biomedicas* (**CTQ2016-75870-P**). Ministerio de Economia y Competitividad. 01/01/**2017**-31/12/**2019**. 100.430 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).
10.- *Síntesis y funcionalización de estructuras dendrimericas BAPAD solubles y fijadas en superficies sólidas. Aplicaciones en diagnóstico y biotecnología* (**CTQ2013-41339-P**). Ministerio de Economía y Competitividad. 01/**2014**-12/**2017**. 105.270 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).
11.- *Nanopartículas de sílice funcionalizadas con antígenos dendrimericos (DeAn@SiO2Np) para un diagnóstico múltiple de hipersensibilidad inmediata a medicamentos* (**PI-0159-2013**). Consejería de Salud y Bienestar Social. Junta de Andalucía. 01/**2014**-12/**2016**. 46.708 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).
12.- *Diseño y Síntesis de Nuevos Dendrimeros y Dendrones para Aplicaciones Biomedicas* (**CTQ2010-20303**). Ministerio de Economia y Competitividad. 01/01/**2011**-31/12/**2013**. 121.000 €. IP: Ezequiel Pérez-Inestrosa (Y.V. researcher).

C.4. Contracts, technological or transfer merits.

Contracts: 1.- *Producción de Nanopartículas de Sílice Diferentemente Funcionalizadas en la Superficie* (**nº 8.06/5.81.4952**). UMA and *Centro de Biotecnología y Genómica de Plantas* (CBGP, UPM-INIA). Universidad Politécnica de Madrid (UPM) - Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA). 2008-actually. **2.-** *Caracterización y control de calidad de aditivos y materias primas* (**nº 8.06/5.04.3223**). UMA and AXIM BUILDING TECHNOLOGIES SA. 02/03/2009-28/02/2010. **3.-** *Síntesis Total de Aditivos Alimentarios* (**nº 8.06/04.2301**). UMA and PRODUCTOS ADITIVOS, S.A. (Barcelona). 16/07/2004-15/07/2005.

Patents: 1.- Strassert, C. A.; Queiroz De Albuquerque, R.; **Vida, Y**.; De Cola, L.. Reference: **GB 0819978.8** (**GB 2464958 A**). Manufacture and Products Thereof of Photosensitizing Nanomaterials and their use in Photodynamic treatment. Priority country: United Kingdom. Application date: 31/10/2008. Publication date: 05/05/2010. Entity: WWU Münster. **2.-** Perez-Inestrosa, E.; Ruiz, A.J.; Najera, F.; **Vida, Y.**; Collado, D.; Mesa, P. Reference: **PCT/ES2012/000136**. *Estructuras dendríticas BAPAD, basadas en la conexión repetitiva de 2,2'-Bis(aminoalquil)carboxiamidas; procedimiento de obtención y aplicaciones*. Priority country: Spain. Publication date: 05/05/2010: 2012-06-13. Entity: UMA. Companies that exploit: Signed CND with NanoSynthons LLC. D A Tomalia-CEO, Michigan, USA. **3.- Y Vida**, M I. Montañez, D Collado, F Najera, A Ariza, M Blanca, M J Torres, C Mayorga, E Perez-Inestrosa. Reference: **ES 201400333**. Nanoconjugated dendrimeric antigens, preparation method and use thereof. Priority country: Spain. Date: 2014-04-23. Entity: UMA and Servicio Andaluz de Salud. **4.-** Collado , D; Remón, P M; **Vida, Y**; Nájera, F; Pischel, U; Perez-Inestrosa, E. Reference: **ES P201400991**. Fluorescent dyads integrating 4-aminonaphthalimide and BODIPY chromophores. Priority country: Spain. Date: 2014-12-05. Entity: UMA and UHU. **5.-** M. I. Montañez, C. Mayorga, M. J. Torres, T. D. Fernandez, A. Ariza, M. Salas, E. Perez-Inestrosa, F. Najera, N. Barbero, **Y. Vida**. Reference: **ES P 2016311331**. *Composición útil en la detección de alergia a ácido clavulánico*. Priority country: Spain. Date: 2016-08-29. Entity: Servicio Andaluz de Salud y UMA

MINISTERIO DE CIENCIA E INNOVACIÓN

CURRICULUM VITAE

AGENCIA ESTATAL DE INVESTIGACIÓN

AVISO IMPORTANTE – El Curriculum Vitae no podrá exceder de 4 páginas. Para rellenar correctamente este documento, lea detenidamente las instrucciones disponibles en la web de la convocatoria.

Fecha del CVA	21/10/2024

Part A. DATOS PERSONALES

Nombre	Antonio		
Apellidos	Martínez Rodríguez		
Sexo (*)		Fecha de nacimiento	
DNI, NIE, pasaporte			
Dirección email	aramon@ugr.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-8880-211X		

** datos obligatorios*

A.1. Situación profesional actual

Puesto	Catedrático de Universidad		
Fecha inicio	27/12/2018		
Organismo/ Institución	Universidad de Granada		
Departamento/ Centro	Química Orgánica/ Facultad de Ciencias		
País	España	Teléfono	+34 958 240481
Palabras clave	Terpenos; reactividad; bioactividad; mecanismo; elucidación		

A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora, de acuerdo con el Art. 14. b) de la convocatoria, indicar meses totales)

Periodo	**Puesto/ Institución/ País / Motivo interrupción**
1989-2018	Profesor Titular de Universidad. Universidad de Granada
1987-1989	Profesor Titular Interino. Universidad de Granada
1983-1987	Profesor Ayudante. Universidad de Granada

(Incorporar todas las filas que sean necesarias)

A.3. Formación Académica

Grado/Master/Tesis	**Universidad/Pais**	**Año**
Licenciado en Ciencias Químicas	Universidad de Granada	1981
Doctor en Ciencias Químicas	Universidad de Granada	1986

(Incorporar todas las filas que sean necesarias)

Parte B. RESUMEN DEL CV *(máx. 5000 caracteres, incluyendo espacios):*

El Prof. ANTONIO MARTÍNEZ RODRÍGUEZ es Doctor en Ciencias Químicas por la Universidad de Granada desde 1986, cuando leyó su Tesis Doctoral realizada en el Grupo de Investigación "Biotecnología y Química de Productos Naturales" (Grupo FQM-139 de PAIDI de la Junta de Andalucía) y dirigida por el Profesor Dr. Andrés García-Granados López de Hierro, en el campo de los Productos Naturales con la que obtuvo la calificación de "Sobresaliente Cum Laude" y obtuvo el Premio Extraordinario de Doctorado. Desde 1983 está vinculado al Departamento de Química Orgánica de la Universidad de Granada y desde entonces viene ejerciendo de Profesor-Investigador. En 1989 obtuvo la plaza de Profesor Titular de Universidad y en 2018 la de Catedrático de Universidad. Ha desarrollado su investigación en el área de los Productos Naturales, utilizando, como materias primas, la flora de la región andaluza y los residuos de molturación de la aceituna. Su trabajo experimental se ha llevado a cabo en varias líneas de investigación, tales como: Estudios fitoquímicos de diversas especies de *Sideritis*, estudios de biotransformación de compuestos terpénicos aislados de plantas andaluzas, síntesis biomimética de sesquiterpenos, determinación estructural y estudio de reactividad de triterpenos pentacíclicos naturales y sus derivados.

Como consecuencia de la trayectoria docente e investigadora, el Prof. MARTÍNEZ ha acreditado 5 sexenios de investigación, 6 quinquenios de docencia y 5 tramos autonómicos. Desde 1983 ha participado ininterrumpidamente como investigador en 15 proyectos de investigación y desarrollo, 2 de ellos como IP. Ha publicado 70 publicaciones en revistas internacionales con un índice de impacto medio y alto. Actualmente tiene un índice h de 22. Ha presentado 59 comunicaciones a diferentes congresos nacionales e internacionales, ha participado en 10 Patentes Tituladas de la Universidad de Granada, ha dirigido 4 Tesis Doctorales, 11 Tesinas de Licenciatura, 2 Trabajos Fin de Máster, y 11 Trabajos Fin de Grado. En cuanto a la actividad docente, el Prof. MARTÍNEZ ha impartido docencia ininterrumpidamente en enseñanzas universitarias regladas desde 1983 con plena dedicación a una amplia variedad de materias de primer y segundo ciclo en las titulaciones de Licenciado en Ciencias Químicas y Grado en Química. También ha participado en programas de doctorado y másteres como: Doctorado en Química, Doctorado en Biotecnología y Master Universitario de Química.

Part C. LISTADO DE APORTACIONES MÁS RELEVANTES (últimos 10 años)-

C.1. Publicaciones más importantes en libros y revistas con "peer review" y conferencias.

1.- Medina-O´Donnell, M., Vega-Granados, K., Martínez, A., Sepulveda, M.R., Molina-Bolivar, J.A., Alvarez de Cienfuegos, L , Parra, A., Reyes-Zurita, F.J, Rivas, F., 2023. Synthesis, optical properties, and antiproliferative evaluation of NBD-triterpene fluorescent probes. *Journal of Natural Products*, 86,166-175. DOI: org/10.1021/acs.jnatprod.2c00880

2.- Fatin, J., Medina-O´Donnell, M., Neubrand, V.E., Marín, M., Saez-Lara, M.J., Sepulveda, M.R., Rufino-Palomares, E.R., Martínez, A., Lupiañez, J.A., Parra, A., Rivas, f., Reyes-Zurita, F.J., 2021. Efficient in vitro and in vivo anti-inflammatory activity of a diamine-pegylated oleanolic acid derivative. *International Journal of Molecular Sciences*, 22, 8158-8180. DOI: org/10.3390/ijms22158158.

3.- Vega-Granados, K., Medina-O´Donnell, M., Rivas, F., Reyes-Zurita, F.J.,Martínez, A., Alvarez de Cienfuegos, L., Lupiañez, J. A., Parra, A. 2021. Synthesis and biological activity of triterpene−coumarin conjugates. *Journal of Natural Products*, 84, 1587-1597 DOI: org/10.1021/acs.jnatprod.1c00128.

4.- Medina-O´Donnell, M., Rivas, F., Reyes-Zurita, F.J., Cano-Muñoz, M., Martínez, A., Lupiañez, J. A., Parra, 2019, Oleanolic acid derivatives as potential inhibitors of hiv-1 protease. *Journal of Natural Products*, 82, 2886-2896. DOI: .org/10.1016/j.saa.2019.02.014.

5.- Molina-Bolivar, J.A., Galisteo-González, F., Carnero Ruiz, C., Medina-O´Donnell, M., Martínez, A., Parra, A., 2019. Maslinic acid conjugate with 7-amino-4-methylcoumarin as probe to monitor the temperature dependent conformational changes of human serum albumin by fret. *Spectrochimica Acta part A: Molecular and Biomolecular Spectroscopy*, 214, 161-169. DOI: org/10.1016/j.saa.2019.02.014.

6.- Medina-O´Donnell, M., Rivas, F., Reyes-Zurita, F.J.,Martínez, A., Lupiañez, J. A., Parra, A. 2018, Diamine and pegylated-diamine conjugates of triterpenic acids as potential anticancer agents. *European Journal Of Medicinal Chemistry*, 148, 325-336 DOI: org/10.1016/j.ejmech.2018.02.044.

7- Fernández-Pastor, I., Martínez-García, M., Medina-O´Donnell, M, Rivas, F., Martínez, A., Pérez-Victoria, J.M., Parra, A., 2018. semisynthesis of ω-hydroxyalkylcarbonate derivatives of hydroxytyrosol as antitrypanosome agents, *Journal of Natural Products*, 81, 2075-2082. DOI: 10.1021/acs.jnatprod.8b00431.

8.- Medina-O´Donnell, M., Rivas, F., Reyes-Zurita, F.J.,Martínez, A., Galisteo-González, F., Lupiañez, J. A., Parra, A. 2017. Synthesis and in vitro antiproliferative evaluation of pegylated triterpene acids. *Fitoterapia*, 120, 25-40-26. DOI: 10.1016/j.fitote.2017.05.006.

9.-. Rivas, F., Medina-O'Donnell, M.; Reyes-Zurita, F.J.; Martinez, A., Martin-Fonseca, S., García-Granados, A.; Ferrer-Martín, R. M.; Lupiáñez, J.A.; Parra, A. 2016. Semi-synthesis and antiproliferative evaluation of PEGylated pentacyclic triterpenes. *European Journal Of Medicinal Chemistry*. 118: 64-78. DOI: 10.1016/j.ejmech.2016.04.016.

10. Basso, A. V., Nicotra, V. E., Parra, A.; Martínez, A., Fernández-Vivas, A. 2016. Biotransformation of Salpichrolides A, C, and G by Three Filamentous Fungi. *Journal of Natural Products*. 79: 1658-1667. DOI: 10.1021/acs.jnatprod.6b00310.

11.- Martínez, A., Rivas, F., Perojil, A., Parra, A. García-Granados, A., Fernández-Vivas, A.; 2013. Biotransformation of oleanolic and maslinic acids by *Rhizomucor miehe*i, *Phytochemistry*, 94, 229-237. DOI: 10.1016/j.phytochem.2013.05.011.

C.2. Congresos, *indicando la modalidad de su participación (conferencia invitada, presentación oral, póster)*

1.- Fatin, J., Medina-O'Donnell, M, Rufino-Palomares, E., Pérez-Jiménez, A., Martínez, A., Rivas, F., Parra, A., Lupiáñez, J.A., Reyes-Zurita, F.J.
Título: Nuevo derivado de ácido oleanólico con importantes efectos anticancerígenos y apoptóticos en células de hepatoma (hepg2). Tipo de participación: Comunicación
Congreso: I Simposio de la unidad de excelencia de química aplicada a biomedicina y medioambiente. Lugar celebración: Granada Fecha: 27- octubre 2018.
2.- Basso, A. V., Nicotra, V.E., Martínez, A., Parra, A.,
Título: Biotransformación de salpichrólidos con hongos filamentosos
Tipo de participación: póster
Congreso: XX Simposio Nacional de Química Orgánica
Publicación: libro de resúmenes (pn-5, pg 149) issn 2347-0267
Lugar celebración: Mar del Plata, Argentina. Fecha: 11-14 noviembre 2015
3.- Basso, A. V., Nicotra, V.E.,Martínez, A., Parra, A.,
Título: Biotransformations of Salpichrolides with Filamentous Fungi
Tipo de participación: póster
Congreso: ACS Summer School on Green Chemistry & Sustainable Energy
Lugar celebración: Golden, Colorado (USA). Fecha: 17-24 junio 2015
4.- Parra, A., Pérez-Criado, S., Martínez, A., Rivas, F., García-Granados, A., Fernández-Hernández, A.,
Título: Quick and full recovery of triterpene compounds from olive skins by microwave-assisted extraction (MAE) Tipo de participación: póster
Congreso: VII Mediterranean Organic Chemistry Meeting (VII REQOMED)
Publicación: libro de actas (póster 5, pg 51)
Lugar celebración: Málaga Fecha: 10-12 junio 2015
5.- Fernández Hernández, A., Martínez, A., Rivas, F., García Mesa, J.A., Parra, A.,
Título: Variabilidad de la composición triterpénica de los alperujos en la provincia de jaén
Tipo de participación: póster
Congreso: XVII International fair of olive oil and allied industries (EXPOLIVA-2015)
Lugar celebración: Jaén Fecha: 6-9 mayo 2015

C.3. Proyectos o líneas de investigación en los que ha participado, *indicando su contribución personal. En el caso de investigadores jóvenes, indicar lineas de investigación de las que hayan sido responsables .*

1.-Título del proyecto: Utilización de los residuos de la industria del aceite de oliva para la obtención de triterpenos y fenoles con relevantes propiedades biológicas (BIORESOLIVE)
Referencia: B1-FQM-650-UGR20
Entidad financiadora:. Junta de Andalucia. Proyectos de I+D+I FEDER Andalucía 2020
Duración, 2021-2023 Cuantía de la subvención: 20000 €
Investigador responsable: Francisco Rivas Sánchez
Contribución: Investigador Número de investigadores participantes: 7.
2.-Título del proyecto: Aprovechamiento de residuos de la industria oleica para la obtención de compuestos bioactivos
Referencia: B1-FQM-217-UGR18
Entidad financiadora:. Junta de Andalucia. Proyectos de I+D+I FEDER Andalucía 2014-2020
Duración, 2020-2021 Cuantía de la subvención: 6.300 €
Investigador responsable: Francisco Rivas Sánchez
Contribución: Investigador Número de investigadores participantes: 4.
3.-Título del proyecto: Incremento de la Biodisponibilidad y la Actividad Biológica de Ácido Maslínico e Hidroxitirosol, dos Compuestos Procedentes de los Residuos de Molturación de

la Aceituna, por Acilación y Pegilación mediante Técnicas de Síntesis Orgánica en Fase Sólida.
Referencia:P11-FQM07372.
Entidad financiadora: Junta de Andalucia
Duración: 2013- 2017.
Cuantía de la subvención: 176.228 €
Investigador Principal: Andrés Parra Sánchez
Contribución: Investigador Número de investigadores participantes: 8.
4.-Título del proyecto: Semisíntesis en Fase Sólida y por Vía Microbiológica de Derivados de Ácidos Triterpénicos Naturales como Agentes Anti-HIV, y Reguladores de la Apoptosis y de la Proliferación Celular. Estudio SAR.
Referencia: CTQ2009-13898.
Entidad financiadora: Ministerio de Ciencia e Innovación
Duración: 2010-2013.
Cuantía de la subvención: 133.100 €
Investigador Principal: Andrés García-Granados López De Hierro
Contribución: Investigador Número de investigadores participantes: 6.

C.4. Participación en actividades de transferencia de tecnología/conocimiento y explotación de resultados

1. Título: Stevioside extraction and purification from Stevia by using calcium bicarbonate
Inventores: Garcia-Granados Lopez de Hierro, A.; Rosua Campos, J. L.; Martinez Rodriguez, A.; Serrano Bernardo, F.
Referencia: WO2012089861 Fecha de aplicación: 07/2011
2. Título: Use of Maslinic Acid in Treatment of Inflammatory and Neurogenic Pain
Inventores: Nieto Lopez, F.R.; Baeyens Cabrera, J.M.; Garcia-Granados Lopez de Hierro, A.; Entrena Fernandez, J.M.; Cobos del Moral, E.J.; Martinez Rodriguez, A.; Parra Sanchez, A.; Rivas Sanchez, F.
Referencia: WO2011015692 Fecha de aplicación: 02/2011
3. Título: Method for Preparation of Products having High Triterpene Content
Inventores: Garcia-Granados Lopez de Hierro, A.; Parra Sanchez, A.; Martinez Rodriguez, A.; Rivas Sanchez, F.
Referencia: WO 2010086480 Fecha de aplicación: 01/2010
4. Título: Uso del ácido maslínico para el tratamiento de patologías y sus síntomas mediante la inhibición de cox-2
Inventores: Prados Osuna, J.; Garcia-Granados Lopez de Hierro, A.; Parra Sanchez, A.; Martinez Rodriguez, A.
Referencia: WO 2009121992 Fecha de aplicación: 03/2009.
5. Título: Use of Maslinic Acid as Inhibitor of Serine Proteases for Treatment of Diseases Caused by Cryptosporidium Parasites
Inventores: Garcia-Granados Lopez de Hierro, A.; Parra Sanchez, A., Martínez Rodriguez, A., Rivas Sanchez, F., Osuna, A., Mascaró, C., Rodríguez, N., Kalifa, L.
Referencia: ES 2131467 Fecha de aplicación: 05/1997

CURRICULUM VITAE ABREVIADO (CVA)

DATE: 21/10/2024

Part A. PERSONAL INFORMATION

First name	Alba		
Family name	Millán Delgado		
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-2754-270X	
Email		amillan@ugr.es	

(*) Mandatory

A.1. Current position

Position	Associate Professor of Organic Chemistry		
Initial date	20/06/2023		
Institution	University of Granada		
Department/Center	Organic Chemistry, Faculty of Science		
Country	Spain	Teleph. number	958243321
Key words	organic synthesis, organometallic chemistry, radicals, polycyclic aromatic hydrocarbons, single-molecule conductance		
"Sexenios de investigación"	2		
"Quinquenios docentes"	2		

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

Period	Position/Institution/Country/Interruption cause
2019-2023	Lecturer, University of Granada
2018-2019	*Juan de la Cierva-Incorporación*, University of Granada
2015-2017	MSCA postdoctoral fellow, University of Bristol, UK
2014-2015	*Alfonso Martín-Escudero* postdoctoral fellow, University of Bristol, UK
2012-2013	Postdoctoral researcher, ICIQ, Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	University of Granada	2012
MSc	University of Granada	2008
Degree in Chemistry	University of Granada	2007

(Include all the necessary rows)

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

Alba Millán graduated in Chemistry from the University of Granada (UGR) in 2007. During her PhD studies at the UGR (FPU fellowship, 2008–2012, Supervisors: J. M. Cuerva, L. Álvarez de Cienfuegos, A. G. Campaña) she worked on the development of new reactions combining free radical (Cp_2TiCl_2) and organometallic chemistry (palladium and nickel complexes). This strategy led to expand the substrate scope of classic titanocene (III) chemistry to non-activated pronucleophiles. She defended her PhD with the maximum grade "Summa Cum Laude" and her Thesis was selected as one of the best 5 PhD thesis in Science at UGR. In addition, one of her works was highlighted in Synfacts. In those years, she gained experience in organic synthesis and synthetic methodologies and she acquired strong lab skills. Moreover, she carried out two predoctoral internship: i) 2 months at the Institut Català d'Investigació Química (ICIQ) under the supervision of Prof. A. M. Echavarren and ii) 3 months the Massachusetts Institute of Technology under the supervision of Prof. T. Jamison. These internships led her to work on gold chemistry and expand her knowledge on nickel chemistry respectively. After her PhD, she moved back to the ICIQ for her first postdoctoral stay (2013). She joined Prof. K.

Muñiz group, where she was working during one year on iodine(III)-promoted amination reactions, focused on the first "metal-free" synthesis of indoles and diversification of tryptamines. During that year, she gained greater scientific maturity and team-working skills. Afterwards, she was awarded a 2-years postdoctoral fellowship from the Martin Escudero Foundation to continue her development as a researcher in the group of Prof. V.K. Aggarwal at the University of Bristol (UoB). During this period, she worked on the development of a new methodology for stereocontrolled synthesis of tetrahydropyrans and its application to the total synthesis of (–)-clavosolide A (work selected as Hot Paper by the Editorial). In 2015, she was awarded a Marie Curie fellowship (MSCA) to continue her postdoctoral studies in the same group working on the stereocontrolled synthesis of polypropionates by lithiation-borylation. During these postdoctoral stays she gained experience in different spectroscopic, spectrometric and chromatographic techniques as well as in stereoselective synthesis, which complement her previous background. In this period, she took on a key role in running the research project and managing younger members of the group. As a result, she developed into a capable manager, able to motivate, organize and delegate and she complete the development of teamwork, leadership and inter-personal skills. Moreover, working in an international environment led to develop a greater understanding and flexibility to different working practices and thinking and to establish new collaborations. In 2018, she joined the Department of Organic Chemistry at the UGR. Since 2023 she is an Associate Professor in the same Department. Her research is divided in two different research lines: i) the study of properties of polycyclic conjugated compound with especial emphasis on those with diradical character; and ii) the development of simplified analogues of granadaene for the development of a vaccine against Group B Streptococcus (GBS). Since 2018, she has been principal investigator (PI) of 2 national projects and 3 regional projects. She has published 28 peer-reviewed articles and her work has been presented in more than 40 scientific meetings. She has been an evaluator of the MSCA program (H2020 and HORIZON) from the European Commission. Since 2018, she has supervised 18 final-year projects, 12 MSc and 2 PhD theses and, currently, she is supervising 3 doctoral theses. Over the years, she has been involved in outreach activities in the UK and Spain.

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

C.1. Publications *(last ten years, 10 selected)*

10) "Single-Molecule Conductance of Neutral Closed-Shell and Open-Shell Diradical Indenofluorenes". R. Casares, S. Rodríguez-González, Á. Martínez-Pinel, I. R. Márquez, M. T. González, C. Díaz, F. Martín, J. M. Cuerva, E. Leary, **A. Millán (AC)**. *J. Am. Chem. Soc*. **2024**, DOI: https://doi.org/10.1021/jacs.4c13551.

9) "Globally aromatic odd-electron π-magnetic macrocycle". F. Villalobos, J. Berger, A. Matěj, R. Nieman, A. Sánchez-Grande, D. Soler, A. Pinar Solé, H. Lischka, M. Matoušek, J. Brabec, L. Veis, **A. Millán**, C. Sánchez-Sánchez, A. G Campaña, J. M Cuerva, P. Jelínek. *Chem* **2024**, DOI: https://doi.org/10.1016/j.chempr.2024.09.015.

8) "A Configurationally Stable Helical Indenofluorene". Á. Martínez-Pinel, L. Lezama, J. M. Cuerva, R. Casares, V. Blanco, C. M. Cruz, **A. Millán (AC)**. *Org. Lett.* **2024**, *26*, 6012–6017. *Front cover.*

7) **"***Chiral Single-Molecule Potentiometers Based on Stapled ortho-Oligo(phenylene)ethynylenes*". A. M. Ortuño, P. Reiné, L. Álvarez de Cienfuegos, I. R. Márquez, W. Dednam, E. B. Lombardi, J. J. Palacios, E. Leary, G. Longhi, V. Mujica, **A. Millán**, M. T. González, L. A Zotti, D. Miguel, J. M Cuerva. *Angew. Chem. Int. Ed.* **2023**, *62*, e202218640.

6) "*Engineering the HOMO–LUMO gap of indeno[1,2-b]fluorene*". R. Casares, Á. Martínez-Pinel, S. Rodríguez-González, I. R. Márquez, L. Lezama, M. T. González, E. Leary, V. Blanco, J. G. Fallaque, C. Díaz, F. Martín, J. M. Cuerva, **A. Millán (AC)**. *J. Mater. Chem. C*, **2022**,*10*, 11775-11782.

5) "*Three-state molecular potentiometer based on the non-symmetric position of an in-backbone linker*". L. Palomino-Ruiz, P. Reiné, I. R. Márquez, L. Álvarez de Cienfuegos, J. M. Cuerva, A. G. Campaña, E. Leary, D. Miguel, **A. Millán (AC)**, L. A. Zotti, M. T. González. *J. Mat. Chem. C* **2021**, *9*, 16282-16289.

4) "*Single-Molecule Conductance of 1,4-Azaborine Derivatives as Models of BN-doped PAHs*" L. Palomino-Ruiz, S. Rodríguez-González, J. G Fallaque, I. R. Márquez, N. Agraït, C. Díaz, E. Leary, J. M. Cuerva, A. G Campaña, F. Martín, **A. Millán (AC)**, M. T. González. *Angew. Chem. Int. Ed.* **2021**, *60*, 6609-6616.

3) "*Lipid analogs reveal features critical for hemolysis and diminish granadaene mediated Group B Streptococcus infection*". B. Armistead, P. Herrero-Foncubierta, M. Coleman, P. Quach, C. Whidbey, J. Justicia, R. Tapia, R. Casares, **A. Millan**, A. Haidour, J. Rodriguez Granger, J. Vornhagen, V. Santana-Ufret, S. Merillat, K. Adams Waldorf, J. M. Cuerva, L. Rajagopal. *Nat. Commun.* **2020**, *11*, 1502.

2) "*Synthesis of distorted nanographenes containing seven- and eight- membered*". I. R. Márquez, S. Castro-Fernández, **A. Millán**, A. G. Campaña
Chemical Communications **2018**, *54*, 6705-6718.

1) "*Tandem allylboration-Prins reaction for the rapid construction of substituted tetrahydropyrans: Application to the total synthesis of (-)-Clavosolide A*". **A. Millán**, J. R. Smith, J. L.- Chen, V. K. Aggarwal*. Angew. Chem. Int. Ed.* **2016**, *55*, 2498-2502. *Hot paper.*

C.2. Congress, (selected)

5) "*Exploring the indenofluorene diradical*". Oral presentation
A. Millán, R. Casares, A. Martínez-Pinel, J. M. Cuerva
"International Workshop on Spin Research in Graphene Nanostructures (SPRING'23)". 18-20 September 2023, San Sebastián, Spain

4) "*Single-molecule conductance of closed- and open-shell diradicals*". Poster
A. Millán, R. Casares, I. R. Márquez, M. T. González, E. Leary, J. M. Cuerva
"The 19th International Symposium on Novel Aromatic Compounds (ISNA-19)". 3-8 July 2022, Warsaw, Poland

3) "*Studies on the optical and electronic properties of 1,4-azaborine derivatives*" Oral presentation
A. Millán, L. Palomino-Ruiz, I. R. Márquez, A. G. Campaña, M. T. González, J. M. Cuerva
"XXVII Biennial Meeting in Organic Chemistry". June 2018, Santiago de Compostela, Spain

2) "*Studies on the optical and electronic properties of 1,4-azaborine derivatives*" Oral presentation
A. Millán, L. Palomino-Ruiz, I. R. Márquez, A. G. Campaña, M. T. González, J. M. Cuerva.
"12th Spanish-Italian Symposium on Organic Chemistry". July 2018, Ferrara (Italy)

1) "*Stereocontrolled synthesis of polypropionates based on building block assembly strategies by lithiation-borylation methodologies*" Oral presentation
A. Millán, B. Zhou, V. K. Aggarwal.
"253rd American Chemical Society National Meeting & Exposition". April 2017, San Francisco (USA)

C.3. Research projects (last five years).

As Principal Investigator:

5. Reference: **PID2021-127964NB-C22**
Title: **Explorando sistemas multirradicalarios fuera del plano**
Funding entity (call): Ministerio de Economía y Competitividad (2021)
Principal investigator: **Alba Millán Delgado**
Participating entity: University of Granada
Start-end date: September 2022- August 2025 Amount: 90.750 €

4. Reference: **B-FQM-130-UGR20**
Title: **Desarrollo de una segunda generación de análogos de granadaeno como vacuna universal de Streptococcus del grupo B**
Funding entity (call): Junta de Andalucía (Programa Operativo FEDER Andalucia 2014-2020)
Principal investigator: **Alba Millán Delgado**/ Juan Manuel Cuerva Carvajal
Participating entity: University of Granada
Start-end date: November 2021- June 2023 Amount: 45.000 €

3. Reference: **P20_00028**
Title: **Hacia una vacuna universal para Streptococcus Grupo B: síntesis y evaluación de analogos lipídicos simplificados de granadaeno**.
Funding entity (call): Junta de Andalucía (PAIDI-2020)
Principal investigator: **Alba Millán Delgado**
Participating entity: University of Granada
Start-end date: October 2021- June 2023 Amount: 35.000 €

2. Reference: **PGC2018-101873-A-I00**
Title: **Polycyclic heteroaromatics as model compounds for the study of fundamental conductance properties**
Funding entity (call): Ministerio de Economía y Competitividad (2018)
Principal investigator: **Alba Millán Delgado**
Participating entity: University of Granada
Start-end date: January 2019- December 2021 Amount: 62.920 €

1. Reference: **A-FQM-221-UGR18**
Title: **Unimolecular conductance in boron- and nitrogen-doped PAHs as model of BN-nanographenes**.
Funding entity (call): Junta de Andalucía (2018)
Principal investigator: **Alba Millán Delgado** /Juan Manuel Cuerva Carvajal
Participating entity: University of Granada
Start-end date: January 2020- December 2021 Amount: 37.150 €

As member of the research team

2. Reference: **R01AI167421 (subcontract 12877SUB)**
Title: **Neutralization of the GBS lipid toxin**
Funding entity (call)**:** National Institute of Health (NIH), EEUU
Principal investigator: Juan Manuel Cuerva Carvajal
Start-end date: June 2022- June 2027 Amount: 313.200 €

1. . Reference: **P20_00028**
Title: **SPIRALITY: Quiralidad helicoidal y espin: diseño molecular de nuevos sistemas para aplicaciones en espintrónica, transduccion óptica de polarización de espin en interfacies quirales y procesosfotoinducidos**.
Funding entity (call): Junta de Andalucía (PAIDI-2020)
Principal investigator: Delia Miguel Álvarez
Participating entity: University of Granada
Start-end date: October 2021- June 2023 Amount: 35.000 €

CV date	21/10/2024

Part A. PERSONAL INFORMATION

First and Family name	Fernando López Ortiz		
Social Security, Passport, ID number		Age	
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0003-1786-0157	
	SCOPUS Author ID (*)	7003266403	
	WoS Researcher ID (*)	L-3540-2014	

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	University of Almería			
Department	Chemistry and Physics			
Address and Country	Carretera de Sacramento s/n, 04120, Almería, Spain			
Phone number	+34950015478	E-mail	flortiz@ual.es	
Current position	Full Professor of Organic Chemistry	From	1996	
Key words	P-stereogenic, phosphazenes, phosphinamides, phosphonamides, thiophosphinamides, cycloaurates, organometallic compounds, coordination complexes, catalysis, metalloantibiotics multinuclear magnetic resonance, reaction mechanisms			

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD in Chemistry	Oviedo	1987

A.3. General indicators of quality of scientific production *(see instructions)*

Number of six-year research periods: 6, date of last recognition: 01/01/2013. Number of transference period: 1 (date: 01/01/2019). JCR articles: total 160 (102 in Q1); h index (Web of Science) = 29; i10 index (Web of Science) = 96. **Period 2020-2024**: JCR articles: 20 (15 in Q1), thesis supervised: 2.

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

He received a PhD in Chemistry from the University of Oviedo (1987, directors J. Barluenga and F. Palacios). Subsequently, he performed a postdoc in Germany as Alexander von Humboldt fellow in the University of Siegen (with H. Günther, Siegen 1987-88) and in the Max-Planck Institute of coal research (with R. Benn, Mülheim 1988-89). In October 1989 he became Associate Professor at the University of Oviedo and in 1996 he moved to the University of Almería as full Professor of Organic Chemistry. Beginning from scratch (no chemistry building was available), over the past 24 years, it has been possible to consolidate a small-size research group highly competitive due to the dedication and effort of the PhD students that contributed to its development. The research has been based on two main subjects, organophosphorus compounds and multinuclear magnetic resonance studies. Some milestones achieved are the isolation and characterization for the first time of alfa-lithiated and alfa,ortho-dilithiated phosphazenes, a mixed valence phosphazenyl Cu^{I}/Cu^{III} complex and the discovery of a general scheme of the Wittig olefination of stable 1,2-oxaphosphetanes. Concerning phosphinic amides, very efficient methods have been found for selective functionalization, including dearomatization reactions. The methodologies developed give access to a large variety of enantiopure C- and/or P-stereogenic compounds that are very useful ligands for the construction of magnetic materials. Phosphinic amides were also converted into the first C,O-chelating ligands used to stabilize $gold^{III}$. The P=S derivatives showed excellent applications in catalysis. Dearomatized phosphinic amides and gold cycloaurate complexes showing antitumor and antibiotic properties, respectively, have been patented. The synthetic work has been supported by mechanistic studies based on the

detection of reactive intermediates through NMR methods involving ^{31}P detection and complemented by computational studies. Currently, the know-how outlined above is being applied to the development of the recent discovery of a new click reaction leading to fully decorated triazeno-triazoles. Since 2016, gold complexes are also being tested as metalloantibiotics against resistant bacteria in collaboration with S. Soto (ISGlobal, Barcelona). Encouraging results have led to a hit (patent protected) and further work is in progress to develop it into a lead. In the NMR arena, the group has carried out metabolomics studies about vegetables and participates in the European project NOMORFILM as responsible of the identification of new antibiotic and antibiofilm compounds isolated from microalgae that are active against mutiresistant bacteria. He is the author of 160 peer reviewed articles and 5 book chapters and has directed 19 PhD thesis. He has been responsible of the NMR Services of the universities of Oviedo (7 years) and Almería (10 years), served two periods as director of the department (10 years). He has taught doctoral courses about NMR in various universities and in 2016 he has been awarded with the Bruker price by the Specialized NMR Group (GERMN) of the RSEQ.

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

C.1. Publications *(see instructions)*

1) E. Belmonte-Sánchez, J. García-López, Y. Navarro, M. J. Iglesias, I. Fernández, F. López-Ortiz. Crystal, Solution, and Computational Study of the Structure of Ortho-Lithium *N,N*-Diisopropyl-*P,P*-Diphenylphosphinothioic Amide. *Chem. Eur. J.* **2024**, *30*, e202303785.
2) J. García-López, D. M. Khomenko, B. V. Zakharchenko, R. O. Doroshchuk, V. S. Starova, M. J. Iglesias, R. D. Lampeka, **F. López-Ortiz***. Solvent- and Functional-Assisted Tautomerism of 3-Alkyl Substituted 5-(2-Pyridyl)-1,2,4-triazoles in DMSO-Water. *Org. Biomol. Chem.* **2023**, *21*, 9443-9458.
3) C. Ratia, V. Cepas, R. Soengas, Y. Navarro, M. Velasco de Andrés, M. J Iglesias, F. Lozano, **F. López-Ortiz***, S. M. Soto*. A C^S-cyclometallated gold(III) complex as a novel antibacterial candidate against drug-resistant bacteria. *Front. Microbiol*. **2022**, *13*, 815622.
4) Y. Navarro, G. P. Guedes, M. A. del Águila-Sánchez, M. J. Iglesias, F. Lloret, F. López-Ortiz. Synthesis, Crystal Structure and Magnetic Properties of a P-Stereogenic Ortho-(4-amino-tempo)Phosphinic Amide Radical and its CuII Complex. *Dalton Trans.* **2021**, *50*, 2585-2595.
5) Y. Navarro, J. García-López, M. J. Iglesias, **F. López-Ortiz***. Chelation-Assisted Interrupted Copper(I)-Catalyzed Azide-Alkyne-Azide Domino Reactions. Synthesis of Fully Substituted 5-Triazenyl-1,2,3-triazoles. *Org. Lett.* **2021**, *23*, 334-339.
6) J. García-López, P. M. Sansores-Peraza, M. J. Iglesias, L. Roces, S. García-Granda, **López-Ortiz, F***. Spiro[1,2]oxaphosphetanes of Non-stabilized and Semi-stabilized Phosphorus Ylide Derivatives. Synthesis and Kinetic and Computational Study of their Thermolysis. *J. Org. Chem.* **2020**, 85, 14570-14591 (*invited article*).
7) Y. Navarro, G. P. Guedes, J. Cano, P. Ocón, M. J. Iglesias, F. Lloret, **F. López-Ortiz***. Synthesis, structural characterization and electrochemical and magnetic studies of $M(hfac)_2$ ($M = Cu^{II}$, Co^{II}) and $Nd(hfac)_3$ complexes of 4-amino-TEMPO. *Dalton Trans.* **2020**, *49*, 6280-6294.
8) M. J. Iglesias, R. Soengas, I. Probert,…; number of authors: 13; AC: M. J. Iglesias* and **F. López-Ortiz***; last autor: **F. López-Ortiz**. NMR characterization and evaluation of antibacterial and antiobiofilm activity of organic extracts from stationary phase batch cultures of five marine microalgae (*Dunaliella* sp., *D. salina*, *Chaetoceros calcitrans*, *C. gracilis* and *Tisochrysis lutea*). *Phytochemistry* **2019**, *164*, 192-205.
9) E. Belmonte-Sánchez, M. J. Iglesias, H. el Hajjouji, L. Roces, S. García-Granda, P. Villuendas, E. P. Urriolabeitia, **F. López-Ortiz***. Cycloaurated Phosphinothioic Amide Complex as Precursor of Gold(I)-Nanoparticles: Efficient Catalysts for A^3 Synthesis of Propargylamines under Solvent-Free Conditions. *Organometallics* **2017**, *36*, 1962-1973.
10) M. A. del Águila-Sánchez, Y. Navarro, J. García-López, G. P. Guedes, **F. López-Ortiz***. Synthesis of P-stereogenic diarylphosphinic amides by directed lithiation. Stereospecific transformation into tertiary phosphine oxides via methanolysis, aryne chemistry and complexation behaviour toward zinc(II). *Dalton Trans.* **2016**, *45*, 2008-2022 (*invited article*).

C.2. Research projects

1) Hit-to-lead development against multiresistant bacteria to antibiotics based on Au(III) complexes with organophosphorus ligands. Funding institution: Universidad de Almería, P_FORT_GRUPOS_2023/61. PI: F. López Ortiz. Period: 01.01.2024-31.12.2024. Budget: 6,738.00 €.

2) Polyoxometalate-Enabled Zinc-Air Battery at Near-Neutral pH (POMEZAB). Funding institution: Ministerio de Ciencia e Innovación. Programm: Proyectos de Transición Ecológica y Transición Digital 2021. TED2021-130205B-C22. PI: Nieves Casañ-Pastor (Institut de Ciencia de Materials de Barcelona, CSIC). Period: 01.12.2022-30.11.2024. Budget: 203,000.00 €.

3) Development of the copper-catalyzed azide-alkyne-azide tandem reaction and applications in coordination chemistry and catalysis (CUAACA). Funding institution: Universidad de Almería, PPUENTE2020/007. PI: F. López Ortiz. Period: 06.05.2020-05.05.2022. Budget: 10,000.00 €.

3) Development of nevel metaloantibiotics against pathogens that cause chronic infections in cystic fibrosis patients. Funding institution: Ministerio de Economía y Competitividad, Instituto de Salud Carlos III, PI16/00166. PI: Sara Soto (ISGlobal). Period: 01.01.2017-31.12.2020. Budget: 157,602.50 €.

C.3. Contracts, technological or transfer merits

1) Síntesis de *para*-hidroxifenilhidantoína. Deretil S.A.U. PI: F. López Ortiz. Period: 01/10/2021-30/10/2022. Budget: 17,250.00 €.

C.4. Patents

1) S. Soto, C. Ratia, V. Cepas, Y. López Cubillos, **F. López-Ortiz**, M. J. Iglesias, R. Soengas. A gold(III) complex, a conjugate of the gold(III) complex, a pharmaceutical composition comprising the gold(III) complex and uses and a process for preparing the gold(III) complex" PCT/EP2019/060879, priority date: 29/04/2019. Owner: University of Almería and ISGlobal, 50% each.

2) V. Vasconcelos, P. Leão, J. Morais, M. Reis, R. Castelo-Branco, F. Oliveira, V. Ramos, F. Lombó-Brugos, C. J. Villar-Granja, I. Gutiérrez del Río Menéndez, S. Redondo-Blanco, **F. López-Ortiz**, M. J. Iglesias, R. G. Soengas, S. Soto, Y. López-Cubillos, V. Cepas, L. Rodolfi, G. Sampietro. Halogenated compounds and uses thereof. PCT/IB2020/058040, priority date: 29/08/2020. Owners: CIIMAR (Centro Interdisciplinar de Investigação Marinha e Ambiental)-Universidade do Porto (85%), Universidad de Oviedo (15%), Universidad de Almería (15%), Fundacíon Privada Instituto de Salud Global de Barcelona (ISGlobal) (15%), Fotosintetica & Microbiologica SRL (F&M) (15%).

3) M. Vardavoulias, M. Arkas, A. Tsetsekou, I. Kitsou, M.a Papageorgiou, E. Gkomoza, S. M. Soto, Y. López, V. Cepas, H. Elvang-Jensen, L. Kruse-Jensen, S. Lopez-Ibanez, I. Gutierrez-del-Rio, C. J. Villar, F. Lombó, M. J. Iglesias, R. Soengas, **F. López-Ortiz**. Hydrogel and xerogel active ingredient carriers made from dendritic polymers and silica for solid substrate coating applications. Greek Patent Application 20190100585, priority date: 30/12/2019. Owners: PYROGENESIS SA (85%), Universidad de Oviedo (5%), Universidad de Almería (5%), Fundacíon Privada Instituto de Salud Global de Barcelona (ISGlobal) (5%), University of Copenhagen (5%).

C.5. Stays in foreign research center

-Max-Planck Institute of photochemistry (Max-Planck Institut für Strahlen Chemie), Mülheim a.d. Ruhr, RFA. DAAD pre-doctoral fellowship, 1986, 2 months.
-University fo Siegen, Siegen, FRG. Alexander von Humboldt postdoc fellowship. 1987-1988.

-Max-Planck Institute of Coal Research (Max-Planck Institut für Kohlenforschung), Mülheim a.d. Ruhr, FRG. Alexander von Humboldt, postdoc fellowship. 1988-1989.
-University of Bath, Bath, UK. Spanish-English exchange action, 1999-2000, 1 monh.
-Universidad Federal Fluminense, Niterói, Río de Janeiro, Brazil. Spanish-Brazilian exchange action, 2012, 1 month.
-Universidad Federal Fluminense, Niterói, Río de Janeiro, Brasil. Spanish-Brazilian exchange action, 2013, 1 month.
-Development of the PVE Science without borders project with Universidad Federal Fluminense, Niterói, Río de Janeiro, Brazil: 2014-2014 (1+1 months); 2015-2015 (1+1 months); 2016-2016 (1 month).

C.6. Management of the scientific activity

-Project evaluator for national plans of research and scientific infrastructures.
-PI of projects: Complements of Infrastructure of the NMR Service, University of Oviedo: 1992, 1995, 1996. Total budget: 245,715.00 €.
-Director of the NMR Service of the University of Oviedo 1.11.89 – 1.12.96.
-PI of project: Equipment of the NMR Service, University of Almería. 2001 (480.000,00 €).
-Director of the Technical Services of Research, University of Almería, 19.06.97 – 18.01.99.
-Director of the NMR Service of the University of Almería, 01.12.97 – 23.05.07.
-Director of Department, University of Almería 19.01.99 – 24.02.09.
-Vicepresident of the Specialized Group of Nuclear Magnetic Resonance (GERMN) of the RSEQ, October 2002-September 2004. Second period: June 2018-.
-Organizer of the “II Mediterranean Organic Chemistry Meeting (REQUOMED II)”, Almería, 2004.

C.7. Editorial committees

Member of the editorial board of: Mini Reviews in Organic Chemistry (2004-2008), Current Organic Synthesis (2004-2014) and Letters in Organic Chemistry (2004-2011).

C.8. Awards

1982. Extraordinary Doctorate Award, University of Oviedo.
2016. Bruker award of the Specialized Group of Nuclear Magnetic Resonance (GERMN) of the RSEQ.

C.9. Others.

- Research dissertations, end-of-degree and end-of-master projects supervised in the last 10 years: 6

Fecha del CVA	21/10/2024

Parte A. DATOS PERSONALES

Nombre y apellidos	María José Iglesias Valdés-Solís		
DNI/NIE/pasaporte			
Núm. identificación del investigador	Researcher ID	L-6516-2014	
	Código Orcid	0000-0001-5340-5595	

A.1. Situación profesional actual

Organismo	Universidad de Almería			
Dpto./Centro	Química y Física/ Facultad de Ciencias Experimentales			
Dirección	Carretera de Sacramento s/n 04120, Almería			
Teléfono	950015035	correo electrónico	mjigle@ual.es	
Categoría profesional	Prof. Titular de Universidad		Fecha inicio	2010
Espec. cód. UNESCO	2306; 230610; 230611; 230612; 2399; 250307; 332102			
Palabras clave	Síntesis asimétrica. Compuestos organometálicos. Metalaciones dirigidas por grupos organofosforados. Antibióticos. Metabolómica			

A.2. Formación académica *(título, institución, fecha)*

Licenciatura/Grado/Doctorado	Universidad	Año
Doctorado en Química	Oviedo	1987

A.3. Indicadores generales de calidad de la producción científica *(véanse instrucciones)*

Tesis doctorales dirigidas: 5. Número de publicaciones en Q1: 71. Índice h (Web Science): 24. Índice i10 (Web Science): 51. Cuatro sexenios concedidos. El último tramo evaluado positivamente corresponde a los años 2017-2022 (en la evaluación de los sexenios no se ha tenido en cuenta la productividad durante los años de trabajo sin vinculación contractual ni la discontinuidad por maternidad).

Parte B. RESUMEN LIBRE DEL CURRÍCULUM *(máximo 3500 caracteres, incluyendo espacios en blanco)*

Finalizada su licenciatura en Química por la Universidad de Oviedo (1981), se incorpora al departamento de Química Orgánica de dicha Universidad para realizar su tesis doctoral, obteniendo el título de doctor en el año 1987. Tras un período de inactividad científica por el nacimiento de sus hijos, en 1990 se integra en el Instituto Nacional del Carbón (CSIC) de Oviedo, institución a la que estuvo vinculada 10 años. En el año 2000 se incorpora a la Universidad de Almería donde actualmente es Profesora Titular en el área de Química Orgánica del departamento de Química y Física. Posee una formación multidisciplinar que abarca síntesis orgánica, caracterización química de derivados del carbón y materiales carbonosos, geoquímica orgánica y metabolómica. Actualmente su investigación se centra en síntesis orgánica (metalaciones dirigidas por grupos organofosforados y sus aplicaciones) y metabolómica (análisis metabolómico de extractos de microalgas mediante resonancia magnética nuclear).

Parte C. MÉRITOS MÁS RELEVANTES *(ordenados por tipología)*

C.1. Publicaciones

1.- E. Belmonte-Sánchez, J. García-López, Y. Navarro, **M. J. Iglesias**, I. Fernández, F. López-Ortiz (2024). Crystal, Solution, and Computational Study of the Structure of Ortho-Lithium *N*,N-Diisopropyl-P,PDiphenylphosphinothioic Amide. *Chem. Eur. J.* **30**, e202303785/1 - e202303785/17).

2.- **M. J. Iglesias**, R. Soengas, F. López-Ortiz, N. Biondi, M. R. Tredici, I. Gutiérrez-del-Río, S. López-Ibáñez, C. J. Villar, F. Lombó, Y. López, Y. Gabasa, Sara Soto (2023). Effect of culture conditions at lab-scale on metabolite composition and antibacterial and antibiofilm activities of *Dunaliella tertiolecta*. *Journal of Phycology* **59**, 356–369.

3.- C. Ratia, S. Sueiro, R.I G. Soengas , **M. J. Iglesias**, F.López-Ortiz, S. M. Soto (2022). Gold(III) Complexes Activity against Multidrug-Resistant Bacteria of Veterinary Significance. *Antibiotics* **11**, 1728/1-1728/16

4.- Y. Navarro, G. P. Guedes, M. A. del Águila-Sánchez, **M. J. Iglesias**, F. Lloret, Fernando López-Ortiz (2021). Synthesis, Crystal Structure and Magnetic Properties of a P-Stereogenic Ortho-(4-amino-tempo)Phosphinic Amide Radical and its Cu^{II} Complex. *Dalton Trans.* **50**, 2585-2595.

5.- **M. J. Iglesias**, R. Soengas, C. B. Martins, M. J. Correia, J. D Ferreira, L. M. A. Santos, F. López-Ortiz (2020). Chemotaxonomic Profiling Through NMR. *J. Phycol.* **56**, 521-539.

6.- **M. J. Iglesias**, R. Soengas, I. Probert, E. Guilloud, P. Gourvil, M Mehiri, Y López, V. Cepas, I. Gutiérrez-del-Río, S. Redondo-Blanco, C. J. Villar, F Lombó, S. Soto, F López Ortiz (2019) NMR characterization and evaluation of antibacterial and antiobiofilm activity of organic extracts from stationary phase batch cultures of five marine microalgae (*Dunaliella* sp., *D. salina*, *Chaetoceros calcitrans*, *C. gracilis* and *Tisochrysis lutea*). *Phytochemistry* **164**, 192-205.

7.- E. Belmonte Sánchez, **M. J. Iglesias**, H. el Hajjouji, L. Roces, S. García-Granda, P. Villuendas, E. P. Urriolabeitia, F. López Ortiz. (2017) Cycloaurated Phosphinothioic Amide Complex as Precursor of Gold(I)-Nanoparticles: Efficient Catalysts for A^3 Synthesis of Propargylamines under Solvent-Free Conditions. *Organometallics* **36**, 1962-1973.

8.- F. López-Ortiz, J. García-López, M. Casimiro, **M. J. Iglesias**. (2016) Diastereoselective Ortho Lithiation of Phosphinimidic Amides: A Multinuclear Magnetic Resonance and Computational Study. *J. Org. Chem.* **81**, 11095-11103.

9.- **M. J. Iglesias**, J. García-López, J. F. Collados-Luján, F. López-Ortiz, M. Díaz, F. Toresano, F. Camacho. (2015) Differential response to environmental and nutritional factors of high-quality tomato varieties. *Food Chem*. **176**, 278-287.

10.- **M. J. Iglesias**, J. García-López, J. F. Collados-Luján, F. López-Ortiz, H. Bojórquez-Pereznieto, F. Toresano, F. Camacho. (2014) Effect of genetic and phenotypic factors on the composition of commercial marmande type tomatoes studied through HRMAS NMR spectroscopy. *Food Chem*. **142**, 1-11.

C.2. Proyectos

1.- “Desarrollo de nuevos metaloantibióticos frente a patógenos causantes de infecciones crónicas en pacientes de fibrosis quística”. Entidad financiadora: Ministerio de Economía y Competitividad, Instituto de Salud Carlos III, PI16/00166. Investigador responsable: Sara Soto (Instituto para la Salud Global, ISGlobal, Barcelona). Duración: 01.01.2017-31.12.2020. En curso.

1.- “Síntesis de compuestos P-estereogénicos aplicados a la construcción de sistemas multifuncionales y catálisis. Entidad financiadora: Ministerio de Economía y Competitividad, CTQ2014-57157-P. Investigador responsable: Fernando López Ortiz. Duración: 01.01.2015-31.12.2018. En curso.

2.- “Novel marine biomolecules against biofilm. Application to medical devices”. Entidad financiadora: European Commission. Call: H2020-BG-2014. Proposal number: 634588. Acronym: NOMORFILM. Número de equipos participantes: 15, de 9 países. Duración, desde: 01.04.2015 hasta: 31.03.2019. Coordinadora: Sara Soto (Barcelona Institute for Global Health, ISGlobal). Investigador responsable para la Universidad de Almería: Fernando López Ortiz.

3.- “Novas moléculas funcionalizadas que integram heterociclos nitrogenados, fosforamidatos e derivados de ácidos fosfínicos com propriedades antileishmania, catalisadores em síntese orgânica e compostos magnéticos moleculares”. Investigador principal: Fernando López Ortiz (España, redacción y coordinación científica del proyecto). Marcos Costa de Souza (Brasil, presentación del proyecto a la institución brasileña y gestión económica). Entidad financiadora: CAPES, Brasil, Programa Ciências sem Fronteiras.

Modalidade: Pesquisador Visitante Especial – PVE. Ref.: 88881.030358_2013-01. Duración: 01/04/2014-31/03/2017.

4.- "Desimetrización de difenilfosfinamidas y difenilfosfacenos mediante metalaciones orto. Aplicaciones en la síntesis de compuestos organometálicos y catálisis". Entidad financiadora: Ministerio de Economía y Competitividad. CTQ2011-27705. Investigador principal: Fernando López Ortiz. Duración: 01/01/2012-31/12/2014, ampliado por solicitud del IP a 30/09/2015.

C.3. Contratos

C.4. Patentes

1.- Inventores (p.o. de firma): S. Soto, C. Ratia, V. Cepas, Y. López Cubillos, F. López-Ortiz, M. J. Iglesias, R. Soengas
Título: A gold(III) complex, a conjugate of the gold(III) complex, a pharmaceutical composition comprising the gold(III) complex and uses and a process for preparing the gold(III) complex

N. de solicitud: EP18382305 País de prioridad: Europa Fecha de prioridad: 03/05/2018
Países a los que se ha extendido: Todos los integrantes del convenio PCT.
Número de solicitud: PCT/EP2019/060879 Fecha de prioridad: 29/04/2019
Número de solicitud: WO/2019/211222 Fecha de prioridad: 07/11/2019
Entidad titular: Universidad de Almería (50%) e ISGlobal (Barcelona, 50%).
https://patentscope.wipo.int/search/de/detail.jsf;jsessionid=37C431EC94DC8FD7E48B6C77809369D4.wapp1nC?docId=WO2019211222&_cid=P12-K3CKPE-97997-8

2.- Inventores (p.o. de firma): V. Vasconcelos, P. Leão, J. Morais, M. Reis, R. Castelo-Branco, F.o Oliveira, V. Ramos, F. Lombó-Brugos, C. J. Villar-Granja, I. Gutiérrez del Río Menéndez, S. Redondo-Blanco, F. López-Ortiz, M. J. Iglesias, R. G. Soengas, S. Soto, Y. López-Cubillos, V. Cepas, L. Rodolfi, G. Sampietro
Título: Halogenated compounds and uses thereof.

N. de solicitud: PT 115761 País de prioridad: Portuguese Provisional Patent Fecha de prioridad: 30/08/2019
Entidad titular: CIIMAR (Centro Interdisciplinar de Investigação Marinha e Ambiental)-Universidade do Porto (85%), Universidad de Oviedo (15%), Universidad de Almería (15%), Fundacíon Privada Instituto de Salud Global de Barcelona (ISGlobal) (15%), Fotosintetica & Microbiologica SRL (F&M) (15%).

Número de solicitud: PCT/IB2020/058040 Fecha de prioridad: 29/08/2020
Número de concesión: WO/2021/038506, **2021** Fecha de publicación: 04/03/2021
https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2021038506&tab=PCTBIBLIO

3.- Inventores (p.o. de firma): M.Vardavoulias, M. Arkas, A. Tsetsekou, I. Kitsou, M.a Papageorgiou, E. Gkomoza, S. M. Soto, Y. López, V. Cepas, H. Elvang-Jensen, L. Kruse-Jensen, S. Lopez-Ibanez, I. Gutierrez-del-Rio, C. J. Villar, F. Lombó, M. J. Iglesias, R. Soengas, F. López-Ortiz
Título: Hydrogel and xerogel active ingredient carriers made from dendritic polymers and silica for solid substrate coating applications.

N. de solicitud: 20190100585 País de prioridad: Greek Patent Application Fecha de prioridad: 30/12/2019
Entidad titular: PYROGENESIS SA (85%), Universidad de Oviedo (5%), Universidad de Almería (5%), Fundacíon Privada Instituto de Salud Global de Barcelona (ISGlobal) (5%), University of Copenhagen (5%)

C.5. Estancia en centros extranjeros

1.- Centro: Universidad Federal Fluminense, Niterói, Río de Janeiro, Brasil. Fecha: 05/08/2012-07/09/2012. Duración (semanas): 4
Tema: Proyecto de colaboración hispano-brasileño HBP-2011-0158.

2.- Centro: Universidad Federal Fluminense, Niterói, Río de Janeiro, Brasil. Fecha: 01/05/2013-30/05/2013. Duración (semanas): 4
Tema: Proyecto de colaboración hispano-brasileño HBP-2011-0158.

C.6. Dirección de tesis doctorales

1.- Título: Caracterización de vitrinitas perhidrogenadas. Influencia del enriquecimiento de hidrógeno en su comportamiento durante la evolución térmica y la oxidación.
Doctorando: Mª José Cuesta Santianes
Universidad: Oviedo
Facultad / Escuela: Química
Fecha: 2004
2.- Título: Aplicaciones de la resonancia magnética nuclear al estudio del perfil metabólico en tomates.
Doctorando: Estela María Sánchez Pérez
Universidad: Almería
Facultad / Escuela: Ciencias Experimentales
Fecha: 2011
3.- Título: Polilitiación de fosfinamidas, ácidos fosfínicos y fosfacenos. Aplicaciones en síntesis orgánica y organometálica.
Doctorando: Víctor Yáñez Rodríguez.
Universidad: Almería
Facultad / Escuela: Escuela Politécnica Superior y Facultad de Ciencias Experimentales
Fecha: 2013
4.- Título: Preparación de sistemas multifuncionales mediante la desimetrización de compuestos azufrados derivados de ácidos fosfínicos. Estudio de suspropiedades y aplicaciones en catálisis.
Doctorando: Eva Belmonte Sánchez.
Universidad: Almería
Facultad / Escuela: Facultad de Ciencias Experimentales
Fecha: 2018.
Tesis internacional
5.- Título: Preparación y caracterización de nuevos materiales magnético-conductores quirales basados en fosfinamidas P-estereogénicas.
Doctorando: Yolanda Navarro García..
Universidad: Almería
Facultad / Escuela: Facultad de Ciencias Experimentales
Fecha: 2021
Tesis internacional

C.5 Otros

Fecha del CVA	21/10/2024

Parte A. DATOS PERSONALES

Nombre	MARÍA JESÚS		
Apellidos	DURÁN PEÑA		
Sexo		Fecha de Nacimiento	
DNI/NIE/Pasaporte			
URL Web			
Dirección Email	mariajesus.duran@uca.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-8816-3095		

RESUMEN NARRATIVO DEL CURRÍCULUM

Obtuve el título de Licenciada en Química en 2008, y completé el Máster en Ciencia y Tecnología Química en 2010, ambos en la Universidad de Cádiz. A continuación, realicé la tesis doctoral, que completé en Julio de 2013 por la Universidad de Cádiz. Mi tesis doctoral se tituló “Nuevas metodologías de ciclopropanación para la síntesis de ingoles y forboles con actividad reactivante del VIH-1” y durante este periodo obtuve una dilatada experiencia en el campo de la síntesis orgánica, así como un profundo conocimiento de técnicas analíticas de identificación, separación y cuantificación, así como de técnicas espectroscópicas para la elucidación estructural de compuestos orgánicos.

En 2014 obtuve un contrato postdoctoral en la Universidad de Warwick (Reino Unido) donde trabajé en un proyecto enfocado a la mejora biotecnológica de la degradación de lignocelulosa empleando bacterias capaces de descomponer la lignina en compuestos aromáticos de valor añadido, y cuyos resultados fueron publicados. En este período profundicé en el trabajo con técnicas habitualmente empleadas en el área de Química Biológica e incrementé mi experiencia en el manejo de microorganismos.

En 2015 obtuve un contrato postdoctoral en la Universidad de Cádiz (Contrato Puente para Doctores) donde continué trabajando en el desarrollo de nuevas metodologías de reacción. Dentro de ese período hice una estancia postdoctoral de 2 meses en la Universidad de Nottingham (Reino Unido) financiada por la Universidad de Cádiz, donde trabajé en el desarrollo de una nueva metodología para obtener gem-diclorociclopropanos a partir de olefinas electrón-deficientes y cuyos resultados fueron publicados. En 2016 disfruté de un contrato como investigadora contratada en al área de Microbiología de la Universidad de Cádiz durante casi 3 meses en los que me adentré en el campo de la proteómica. En este periodo trabajé en la primera aproximación proteómica de la microalga Nannochloropsis gaditana. Los resultados obtenidos en este estudio también fueron publicados. En octubre de 2016 fui contratada como Profesora Sustituta Interina (PSI) en el Departamento de Química Orgánica de la Universidad de Cádiz. Realicé una segunda estancia postdoctoral en la Universidad de Nottingham (2,5 meses en 2017) en la que estuve trabajando en la síntesis de tetratiotetracenos sustituidos para ser evaluados por sus propiedades termoeléctricas.

Los resultados de síntesis y aplicación de estos compuestos fueron publicados. En 2018 realicé una estancia postdoctoral en esta ocasión en la Universidad de Granada 4 meses) para trabajar en una nueva metodología de a-alquilación de aldehídos a,b-insaturados, cuyos resultados fueron nuevamente publicados con éxito. Como consecuencia de todo ello, soy la primera autora de 7 publicaciones científicas, coautora de otras 14 publicaciones y "corresponding author" en otras dos publicaciones (las 23 publicaciones se encuentran indexadas en JCR). He realizado 24 aportaciones a congresos (9 a congresos nacionales y 15 a congresos internacionales).

En 2017 fui Investigadora principal una nueva línea de investigación dedicada al desarrollo de nuevos agentes antibacterianos basados en compuestos con esqueleto de triterpeno (Referencia: PR2017-046, Modalidad: Proyectos de Investigación-UCA- 1ª Convocatoria 2017), desde 1 de septiembre 2017 a 28 de febrero de 2019. Así comencé a trabajar en el estudio de la actividad biológica de limonoides degradados aislados de plantas de las familias Meliaceae y Rutaceae. Estoy interesada en continuar con el estudio de la actividad antibiótica y antiinflamatoria de compuestos con estructura de limonoide degradado, así como en el

desarrollo de nuevas metodologías de reacción orientadas a la preparación de productos naturales y derivados.

Además, pertenezco como socio joven en la Real Sociedad de Química Española y en el Grupo Especializado de Productos Naturales, y he recibido el premio GEPRONAT 2018 a la investigadora novel del Grupo Especializado en Química de Productos Naturales. Por otro lado, he impartido docencia en diversas asignaturas del área de química orgánica en diversos grados y he dirigido 15 trabajos de fin de grado, 4 trabajos de fin de máster. Actualmente estoy dirigiendo 1 tesis doctoral en desarrollo.

En 2022 promocioné a Profesora Ayudante Doctor y, 9 meses después pasé a ser Profesora Contratada Doctor Interina. En diciembre de 2023 obtuve la plaza de Profesora Titular de Universidad y en estos momentos continuo con mi actividad investigadora y colaboro con el profesor Mario Cordero Morales (de la Universidad Pablo de Olavide) en investigaciones enfocadas a la clarificación de procesos inflamatorios.

1. ACTIVIDAD INVESTIGADORA, DE TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1. PROYECTOS Y CONTRATOS DE INVESTIGACIÓN Y TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1.1. Proyectos

1 **Proyecto**. Desarrollo de diterpenos con esqueleto de latiranos como componentes de fármacos para el tratamiento de enfermedades de deterioro congnitivo.. (Universidad de Cádiz). 01/09/2023-31/08/2026. 100.000 €.

2 **Proyecto**. Desarrollo de diterpenos como agentes promotores de la regeneración neuronal. (Universidad de Cádiz). 01/01/2020-31/12/2022. 119.800 €.

3 **Proyecto**. Diterpenos como nuevos modelos de fármacos en terapias de regeneración neuronal. (Universidad de Cádiz). 01/01/2019-31/12/2022. 54.450 €.

4 **Proyecto**. Desarrollo de nuevos agentes antibacterianos basados en compuestos con esqueleto de triterpeno.. (Universidad de Cádiz). 01/09/2017-31/08/2018. 3.500 €. Investigador principal.

5 **Proyecto**. Biotechnological enhancement of lignocellulose degradation. (Universidad de Warwick). 01/09/2014-30/08/2016. Investigadora postdoctoral contratada.

6 **Proyecto**. Síntesis, evaluación y desarrollo de sustancias activadoras de la latencia del virus HIV-1. Junta de Andalucia. Gonzalo Sánchez Duffhues. (Universidad de Cádiz). 19/12/2007-20/12/2011. Investigadora contratada.

1.2. RESULTADOS Y DIFUSIÓN DE LA ACTIVIDAD INVESTIGADORA Y DE TRANSFERENCIA E INTERCAMBIO DE CONOCIMIENTO

1.2.1. Actividad investigadora

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Artículo científico**. Universidad de Cádiz; José Manuel Botubol Ares; Isidro González Collado; Rosario Hernández Galán. 2023. Degraded limonoids: biologically active limonoid fragments re-enhancing interest in Meliaceae and Rutaceae sources. Phytochemistry Reviews. 22, pp.695-741.

2 **Artículo científico**. Enrique; Ramón; Fermin; María Jesús; Rachid; José Manuel. 2021. Deconjugative α-Alkylation of Cyclohexenecarboxaldehydes: An Access to Diverse Terpenoids. Journal of Organic Chemistry. 86, pp.8742-8754.

3 **Artículo científico**. María Eugenia Flores Giubi; José Manuel Botubol Ares; Universidad de Cádiz; et al; Rosario Hernández Galán. 2020. Bond reactivity indices approach analysis of the [2+2] cycloaddition of jatrophane skeleton diterpenoids from Euphorbia gaditana Coss to tetracyclic gaditanone. Phytochemistry. 180, pp.112519.

4 **Artículo científico**. ; Universidad de Cádiz; Victoria Prieto; et al; María Jesús Durán Peña. 2020. Synthesis of Degraded Limonoid Analogs as New Antibacterial Scaffolds against Staphylococcus aureus. Antibiotics. 9, pp.488.

5 **Artículo científico**. Francisco Javier Fernández Acero; Francisco Amil Ruiz; (3/8) María Jesús Durán Peña; Rafael Carrasco; Carlos Fajardo; Palmira Guarnizo; Carlos Fuentes Almagro; Roberto A. Vallejo. 2019. Valorisation of the microalgae Nannochloropsis gaditana biomass by proteomic approach in the context of circular economy. Journal of proteomics. Elsevier. 193, pp.239-242.

6 **Artículo científico**. José Manuel Botubol Ares; (2/5) María Jesús Durán Peña; James R. Hanson; Rosario Hernández Galán; Isidro González Collado. 2018. Cp2Ti(III)Cl and analogues as sustainable templates in Organic Synthesis. Synthesis. Thieme. pp.2163-2180.

7 **Artículo científico**. Mary Robert Garret; (2/11) María Jesús Durán Peña; William Lewis; et al; Simon Woodward. 2018. Synthesis and Thermoelectric Properties of 2- and 2,8-Substituted Tetrathiotetracenes. Journal of Materials Chemistry C: Materials for Optical and Electronic Devices. 6, pp.3403-3409.

8 **Artículo científico**. Goran Rashid; (2/5) María Jesús Durán Peña; Rahman Rahmanpour; Devin Sapsford; Timothy D. H. Bugg. 2017. Delignification and Enhanced Gas Release from Soil Containing Lignocellulose by Treatment with Bacterial Lignin Degraders. Journal of Applied Microbiology. pp.159-171.

9 **Artículo científico**. María Eugenia Flores Giubi; (2/7) María Jesús Durán Peña; José Manuel Botubol Ares; Felipe Escobar Montaño; David Zorrilla Cuenca; Antonio José Macías Sánchez; Rosario Hernández Galán. 2017. Gaditanone: An Unprecedented Diterpenoid Skeleton Isolated from Euphorbia gaditana. Journal of Natural Products. pp.2161-2165.

10 **Artículo científico**. (1/8) María Jesús Durán Peña; María Eugenia Flores Giubi; José Manuel Botubol Ares; Felipe Escobar Montaño; Antonio J. Macías Sánchez; Luis F. Echeverri; Isidro Gónzalez Collado; Rosario Hernández Galán. 2017. Lathyrane diterpenes from the latex of Euphorbia laurifolia. Natural Product Communications. pp.671-673.

11 **Artículo científico**. (1/7) MARÍA JESÚS DURÁN PEÑA; M. EUGENIA FLORES GIUBI; JOSÉ MANUEL BOTUBOL ARES; LAURENCE HARWOOD; ISIDRO GONZÁLEZ COLLADO; ROSARIO HERNÁNDEZ GALÁN; ANTONIO MACÍAS SÁNCHEZ. 2016. Chemoselective and stereoselective lithium carbenoid mediated cyclopropanation of acyclic allylic alcohols. Organic & Biomolecular Chemistry. Royal Society of Chemistry. 14, pp.2731-2741.

12 **Artículo científico**. (1/5) María Jesús Durán Peña; José Manuel Botubol Ares; James R. Hanson; Rosario Hernández Galán; Isidro González Collado. 2016. Efficient acylation using Cp2TiCl as a reaction promoter. European Journal of Organic Chemistry. Royal Society of Chemistry. pp.3584-3591.

13 **Artículo científico**. Darren S. Lee; (2/4) María Jesús Durán Peña; Laurence Burroughs; Simon Woodward. 2016. Efficient preparation of TMSCCl2Br and its use in dichlorocyclopropanation of electron deficient alkenes. Chemistry A European Journal. Wiley. 22, pp.7609-7616.

14 **Artículo científico**. (1/5) MARÍA JESÚS DURÁN PEÑA; JOSÉ MANUEL BOTUBOL ARES; JAMES R. HANSON; ROSARIO HERNÁNDEZ GALÁN; ISIDRO GONZÁLEZ COLLADO. 2015. An unexpected mild protection of alcohols as 2-O-THF and 2-O-THP ethers catalyzed by Nugent's reagent reveal an intriguing role of THF in the single electron transfer reaction. European Journal of Organic Chemistry. pp.6333-6340.

15 **Artículo científico**. (1/5) MARÍA JESÚS DURÁN PEÑA; JOSÉ MANUEL BOTUBOL ARES; JAMES R. HANSON; ROSARIO HERNÁNDEZ GALÁN; ISIDRO GONZÁLEZ COLLADO. 2015. Biological Activity of Natural Sesquiterpenoids containing a gem-Dimethylcyclopropane Subunit. Natural Products Report. 32, pp.1236-1248.

16 **Artículo científico**. José Manuel Botubol Ares; (2/6) María Jesús Durán Peña; Rosario Hernández Galán; Laurence Harwood; Isidro González Collado; Antonio José Macías Sánchez. 2015. Diastereoselective and Enantioselective Preparation of nor-Mevaldic Acid Surrogates through Desymmetrisation Methodology. Enantioselective Synthesis of (+) and (-) nor-mevalonic lactones. Tetrahedron. 71, pp.7531-7538.

17 **Artículo científico**. José Manuel Botubol Ares; (2/6) María Jesús Durán Peña; Antonio José Macías Sánchez; James R. Hanson; Isidro González Collado; Rosario Hernández Galán. 2015. The synthesis of 3-hydroxy-2,4,8-trimethyldec-8-enolides and an approach to 3,4-dihydroxy-2,4,6,8-tetramethyldec-8-enolide. Organic & Biomolecular Chemistry. 13, pp.465-476.

18 **Artículo científico**. (1/5) MARÍA JESÚS DURÁN PEÑA; JOSÉ MANUEL BOTUBOL ARES; JAMES R. HANSON; ROSARIO HERNÁNDEZ GALÁN; ISIDRO GONZÁLEZ COLLADO. 2015. Titanium Carbenoid-mediated cyclopropanation of allylic alcohols: Selectivity and mechanism. Organic Biomolecular Chemistry. 13, pp.6325-6332.

19 **Artículo científico**. José Manuel Botubol Ares; (2/6) María Jesús Durán Peña; Rosario Hernández Galán; Isidro González Collado; Laurence Harwood; Antonio José Macías Sánchez. 2015. nor-Mevaldic acid surrogates as selective antifungal agents leads Botrytis cinerea. Enantioselective preparation of 4-hydroxy-6-(1-phenylethoxy)tetrahydro-2H-pyran-2-one. Bioorganic and Medicinal Chemistry. 23, pp.3379-3387.

20 **Artículo científico**. (1/4) MARÍA JESÚS DURÁN PEÑA; JOSÉ MANUEL BOTUBOL ARES; ISIDRO GONZÁLEZ COLLADO; ROSARIO HERNÁNDEZ GALÁN. 2014. Biologically active Diterpenes containing a gem-dimethylcyclopropane. Natural Products Report. 31, pp.940-952.

21 **Artículo científico**. José Manuel Botubol Ares; (2/6) María Jesús Durán Peña; James Hanson; Antonio José Macias Sánchez; Isidro González Collado; Rosario Hernández Galán. 2014. Exploring mutasynthesis to increase structural diversity in the synthesis of highly oxygenated polyketides lactones. Organic & Biomolecular Chemistry. 12, pp.5304-5310.

22 **Artículo científico**. José Manuel Botubol Ares; (2/6) María Jesús Durán Peña; Antonio José Macías Sánchez; James R. Hanson; Isidro González Collado; Rosario Hernández Galán. 2014. The asymmetric total synthesis of cinbotolide. A revision of the original structure. Journal of Organic Chemistry. 79, pp.11349-11358.

23 **Artículo científico**. Botubol-Ares, José Manuel; (2/4) Durán-Peña, María Jesús; González-Collado, Isidro; Hernández-Galán, Rosario. 2013. Chemical genetics strategies for identification of molecular targets. Phytochemistry reviews. 12, pp.895-914.

1.2.2. Transferencia e intercambio de conocimiento y actividad de carácter profesional

Actividad de carácter profesional

Profesora Titular de Universidad: Universidad de Cádiz. 2023- actual.

Explicación narrativa de la aportación

Funciones desempeñadas

Docencia

2 **Profesora Contratada Doctor Interina:** Universidad de Cádiz. 01/04/2023.

3 **Profesora Ayudante Doctor:** Universidad de Cádiz. 01/07/2022.

4 **Profesora Sustituta Interina:** Universidad de Cádiz. 02/03/2017.

5 **Profesora Sustituta Interina:** Universidad de Cádiz. 01/10/2016. (4 meses).

1.3. ESTANCIAS EN UNIVERSIDADES Y CENTROS DE INVESTIGACIÓN

1.3.1. Estancias

1 **Estancia:** Universidad de Granada. (España). 01/06/2018-30/09/2018.

2 **Estancia:** Universidad de Nottingham. (Reino Unido). 01/06/2017-15/09/2017.

3 **Estancia:** Universidad de Nottingham. (Reino Unido). 15/06/2015-15/08/2015.

4 **Estancia:** Universidad de Warwick. (Reino Unido). 01/09/2014-15/04/2015.