

Part A. PERSONAL INFORMATION

CV date 24/02/2023

First name	MARÍA VIOLANTE		
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ID number			
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Researcher codes	Open Researcher and Contributor ID (ORCID*)	0000-0002-6544-4732	
	SCOPUS Author ID	14032973700	
	WoS Researcher ID	G-6848-2015	

A.1. Current position

Position	CATEDRÁTICA DE UNIVERSIDAD		
Initial date	19/07/2022		
Institution	UNIVERSIDAD DE SEVILLA		
Department/Center	Dpto. Química Orgánica y Farmacéutica / Facultad de Farmacia		
Country	Spain	Teleph. number	653163108
Key words	Macromolecules; carbohydrates; Monomers; Living polymerizations; Micro- and Nano-materials; Stimulus-responsive polymeric systems; Drug delivery systems; Materials from renewable resources; hydrogels		

A.2. General indicators of quality of scientific production

Number of sexennia: 4 Last sexennium: 2013-2018 (granted: 07/06/2019)
 N.º of triennials: 10 N.º of quinquennia: 5; N.º autonomic complements: 5 out of 5

Publications in WoS: 79 Sum of Times Cited (G-Scholar): 2,132
 h index (G-Scholar): 24
 From the global scientific production: Decile-1: 21 Q-1: 41
 No. papers being cited 200 times or above: 3

- No. Doctoral Theses directed: (last 10 years): 2
 •Dr. Cristina Ferris, Thesis with International Mention. **Extraordinary Doctorate Award, 2015**
 8 papers Q1 (WoS)
 •Dr. Nieves Iglesias: Thesis with International Mention. **Extraordinary Doctorate Award, 2022**
 7 papers Q1 (WoS)
 No. Doctoral Theses in course: 1 Estimated defense dates: June 2023 (Sara Galvín)
 No. TFM supervised (last 10 years): 6; No. TFG supervised (last 10 years): 34

- Numbers of book chapters: 6: From *the American Chemical Society* (2), *The Royal Society of Chemistry* (2), MDPI (1) and *InTech-Open* (1).

Patents: 2, one of them is an international patent in exploitation.

Part B. CV SUMMARY

MV de Paz received her **doctorate in Pharmacy in 1997** (University of Seville, US) where she worked on the synthesis and characterization of new polyamides derived from sugar under the direction of Prof. Juan A. Galbis and M. Gracia García-Martín. **7 JCR articles** were derived from her thesis, and the synthesis of the **1st nylon-type polyamide from sugars** recorded in the literature is noteworthy. She did a post-doctoral stay (2 post-doctoral grants: MEC and *Plan Propio Universidad de Huelva*, UHU) in the laboratory of the renowned Prof. Steven P. Armes (h-index: 132) at the Univ. Sussex (UK, 1998-1999) and worked on **living polymerization techniques** of methacrylate esters. Her postdoctoral work led to **6 high-impact Q1 papers (869 citations)**. It is worth highlighting the fine-tuning of the synthesis of poly(2-hydroxyethyl methacrylate) at room temperature, in aqueous media (**376 citations**).

Already **FULL PROFESSOR**, she enjoyed a contract (**Research Fellow**) at Univ. Sussex (Jun-Sept. 2000). In March 2004 she joined the US (Department of Organic and Pharmaceutical Chemistry, QOYF, contest-opposition) as PTU where she continues to carry out her professional activity. Her research activity focused on the synthesis of functionalized condensation polymers for biomedical purposes, and she was co-author of a review article in **Chemical Reviews (2016, >274 citations)** which includes, among others, her most relevant works on the subject. **She is currently involved** in the preparation of smart nanoparticles and hydrogels with biomedical applications. She is the **principal investigator (PI) of the R+D+i projects** "Sustainable preparation of superporous hydrogels with improved biodegradability through the formation of interpenetrating networks" (**PID2020-115916GB-I00 (MICINN)**) and "Development of Nano and Microstructured Polymeric Materials with Gastroretentive Action for the Oral Administration of Drugs", (**US-1380587**), financed by the **European Union (FEDER)**, **Junta de Andalucía**.

Dr. de Paz has **worked as a doctor for 25 years** in the development of biomaterials with diverse properties and structures that have proven to be useful for biomedical applications. She is the author of **79 articles and book chapters**, 60 out of them related to polymer science, of which 57 are articles indexed in JCR (WOS), 21 of them cataloged in the **first decile** of the category. She has **led other 2 research projects** publicly funded in competitive calls, one of them at the national level (**MAT2016-77345-C3-2-P**) and another at the regional level (**P12-FQM-1553**). It has been the IP of 2 contracts **68/83 with the multinational Schlumberger Holding LTD (OG-108/05, OG-025/07)** and cooperated with 2 other foreign companies (**Zeneca Agrochemicals, UK, and ANBsensor, UK**), giving rise to the authorship of **11 technical reports and 2 patents**, one of them **international and in exploitation (GB2453112-B; US7987912-B2)**. She maintains an **extensive network of national and international collaborators** as evidenced by the **23 joint publications** (2007-now). She has received various **awards/distinctions**, among which the followings stand out: * **3rd position** out of 28 members in Dept. QOYF, US. (**Scopus Ranking** February-2023); *Award for the **best scientific publication** (US, F. Farmacia, Nov-2019); ***Bruker-US Award for the best research work in applied NMR** (2012). **Pharmaceutics Editor (D1, IF 6,321 (2020-). Pharmaceutics Guest Editor (D1, IF 6,321, 2019-). Research Project Evaluator: KU Leuven University, Belgium (2018-); ANEP (2017-); AGAE (2010-)** Regular reviewer in scientific journals (8 Q1, 3 Q2) **Secretary of the department QOYF, US (63 months) Organizer of 4 national and international Conferences/Workshops: (2007-) Scientific reviewer of the book Clinical Chemistry Principles, Techniques and Correlations (ISBN: 9781-1-4963-3558-6) Assessor of business projects** for the Campus Program in Andalusia (2011-).

MV de Paz has **taught at the undergraduate level (5,660 hours) 35 subjects in 15 degrees** (3 bachelor's degrees, 5 degrees, 1 higher engineering, 6 technical engineering) **at 2 universities** (UHU, US). She has **taught at post-graduate level 15 subjects in 8 programs** (4 Doctoral Programs, 4 Masters, **3 of them with Excellence Mention**) in **3 universities** (UHU, US, and International University of Andalusia) (309 h). She has **supervised: 2 theses with European and Excellence Mentions** (both of them, deserving of the **Extraordinary Doctorate Award, US 2015, US-2022**); **6 Master's Thesis** in 2 Master's Degrees with Excellence Mention; **34 Final Degree Projects/Final Degree Projects** in 6 different degrees.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- R. Grosso, E. Benito, A.I. Carbajo-Gordillo, M.G. García-Martín, V. Perez-Puyana, P. Sánchez-Cid, **M.-V. De-Paz (CA)**. (7/7). “Biodegradable Guar-Gum-Based Super-Porous Matrices for Gastroretentive Controlled Drug Release in the Treatment of Helicobacter pylori: A Proof of Concept.” *International Journal of Molecular Sciences*, **2023**, *24* 2281 (1–23). doi: <https://doi.org/10.3390/ijms24032281>. *Biochemistry & Molecular Biology*: 69/297; **Q1. JIP**: 6.208.
- Grosso, R.; **De-Paz, M.V (CA)** (2/2). “Scope and Limitations of Current Antibiotic Therapies against Helicobacter pylori: Reviewing Amoxicillin Gastroretentive Formulations”. *Pharmaceutics*, **2022**, *14*, <https://doi.org/10.3390/pharmaceutics14071340>. *Pharmacology & Pharmacy*: 28/275; **D1, Q1. JIP**: 6.321.
- R. Grosso, **M.-V. De-Paz (CA)**. (2/2) “Thiolated-Polymer-Based Nanoparticles as an Avant-Garde Approach for Anticancer Therapies — Reviewing Thiomers from Chitosan and Hyaluronic Acid.” *Pharmaceutics*, **2021**, *13*, 854 (1-48). <https://doi.org/10.3390/pharmaceutics13060854>. *Pharmacology & Pharmacy*: 28/275; **D1, Q1. JIP**: 6.321.
- N. Iglesias, E. Galbis, C. Valencia, M.J. Díaz-Blanco, B. Lacroix, & **M.-V. De-Paz (CA)**. (6/6) “Biodegradable double cross-linked chitosan hydrogels for drug delivery: Impact of chemistry on rheological and pharmacological performance”. *International Journal of Biological Macromolecules*, **2020**, *165*, 2205–2218. <https://doi.org/10.1016/j.ijbiomac.2020.10.006>. *Polymer Science*: 9/89; **D1, Q1. JIP**: 6.953.
- N. Iglesias, E. Galbis, L. Romero-Azogil, E. Benito, R. Lucas, M.G. García-Martín, & **M.-V. De-Paz (CA)**. (7/7) “In-Depth Study into Polymeric Materials in Low-Density Gastroretentive Formulations. *Pharmaceutics*”, **2020**, *12*(7), 636 (1-49). <https://doi.org/10.3390/pharmaceutics12070636>. *Pharmacology & Pharmacy*: 28/275; **D1, Q1. JIP**: 6.321.
- N. Iglesias, E. Galbis, L. Romero-Azogil, E. Benito, M.-J. Díaz-Blanco, M. G. García-Martín, **M. V. De-Paz (CA)** (7/7), “Experimental model design: Exploration and optimization of customized polymerization conditions for the preparation of targeted smart materials by click Diels Alder”, *Polymer Chemistry*, **2019**, *10*, 5473-5486. <https://doi.org/10.1039/C9PY01076A>. *Polymer Science*: 8/89; **D1, Q1. JIP**: 5.342.
- N. Iglesias, E. Galbis, M.-J. Díaz-Blanco, R. Lucas, E. Benito, **M. V. De-Paz (CA)** (6/6). “Nanostructured Chitosan-based biomaterials for sustained and colon-specific resveratrol release”, *International Journal of Molecular Sciences*, **2019**, *20*, 398 (1–16). <https://doi.org/10.3390/ijms20020398>. *Biochemistry and molecular Biology* 74/297, **Q1, JIP**: 4.556.
- N. Iglesias, E. Galbis, M.J. Díaz-Blanco, **M.-V. de-Paz (CA)**, J.A. Galbis (4/5). “Loading studies of the anticancer drug camptothecin into dual stimuli-sensitive nanoparticles. Stability scrutiny”. *Int. J. Pharm.* **2018**, *550*, 429–438. <https://doi.org/10.1016/j.ijpharm.2018.08.026>. *Pharmacology & Pharmacy*: 45/256; **Q1. JIP**: 3.785.
- N. Iglesias, E. Galbis, C. Valencia, **M.-V. de-Paz (CA)**, J. A. Galbis. (4/5) “Reversible pH-Sensitive Chitosan-Based Hydrogels. Influence of Dispersion Composition on Rheological Properties and Sustained Drug Delivery”. *Polymers*, **2018**, *10*, 392; 1-17. <https://doi.org/10.3390/polym10040392>. *Polymer Science*: 16/86; **Q1. JIP**: 3.364.
- J. A. Galbis; M. G. García-Martín; **M.V. de Paz**; E. Galbis (**CA**). (3/4) “Synthetic Polymers from Sugar-based Monomers” *Chem. Rev.*, **2016**, *116*, 1600-1636. *Chemistry, Multidisciplinary*: **1/166; D1. JIP**: **47.928**.
- M.J. Lucero, C. Ferris, C.A. Sánchez-Gutiérrez, M.R. Jiménez-Castellanos (**CA**); **M.V. de Paz (CA)**.(5/5) “Novel aqueous chitosan-based dispersions as efficient drug delivery systems for topical use. Rheological, textural and release studies”. *Carbohydr. Polym.*, **2016**, *151*, 692–699. <http://dx.doi.org/10.1016/j.carbpol.2016.06.006>. *Chemistry Applied*: 4/72; **D1, Q1. JIP**: 4.811.

C.2. Research projects (PI: Principal investigator)

(• 1) REF.: PID2020-115916GB-I00. “Eco-friendly preparation of superporous hydrogels with improved biodegradability by the formation of interpenetrated networks (ECOPOLYNET)”.

PI: M.^a **Violante de Paz Báñez**. Funding agency: **MICINN**. 90,750 €. Duration: 01/09/2021 — 31/08/2024.

(• 2) REF.: US-1380587. “Development of nano and microstructured polymeric materials with gastroretentive action for oral drug administration”. PI: M.^a **Violante de Paz Báñez**. Funding agencies: **FEDER (EU)/Junta Andalucía**. 80,000€. Duration: 01/01/2021 — 31/05/2023.

(• 3) REF.: MAT2016-77345-C03-2-P (coordinated Project). “Polímeros de fuentes renovables para aplicaciones farmacéuticas. Diseño de sistemas avanzados para liberación prolongada y localizada de fármaco”. PI: Manuel Bueno Martínez / M.^a **Violante de Paz Báñez**. Funding agency: **MINECO**. 80,000€. Duration: 01/01/2017 — 01/07/2019.

(• 4) REF.: Excellence Project P12-FQM-1553. “Polímeros degradables a partir de fuentes renovables como sistemas para el transporte y liberación de fármacos y de material genético”.

PI: Juan Antonio Galbis Pérez / M.^a **Violante de Paz Báñez**. Funding agency: **Junta de Andalucía**. 273,894 €. Duration: 01/01/2014 — 16/07/2019.

C.3. Grants and Stays in foreign Research Centers

(• 1) Contract as “Research Fellow” at the University of Sussex, U.K. (06/26/2000 to 06/29/2000);

(• 2) Post-doctoral Fellowship, Ministry of Education and Science, enjoyed in Univ Sussex, UK, 1999;

(• 3) Post-doctoral Fellowship, PP University of Huelva, University of Sussex, UK (1998);

(• 4) Predoctoral Fellowship, Junta de Andalucía (1990-1993).

C.4. Participation in Contracts, technological and transfer merits

(• 1) Contract I+D+i with research company 68/83. REF.: OG-025/07. “Synthesis of novel sugar-based materials”. PI: M.^a **Violante de Paz Báñez**. Funding agency: Multinational **Schlumberger** Holding Limited (<https://www.slb.com/>), UK. 109,480 €; Duration: 06/02/2007 — 31/01/2011

(• 2) Author of Independent Technical Reports

- 6 Reports for the Multinational **Schlumberger** Holding Limited, (<https://www.slb.com/>)
From May-2006 to January-2011

- 5 Reports for the Research Company **ANB Sensors**, Cambridge, UK (<http://www.anbsensors.com/>)
From September-2017 to September 2018

C.4. Patents

(• 1) International patent in exploitation:

Schlumberger Holding Limited, Cambridge, UK, “Reversible polymeric gelation for oilfield applications”. Robinson, K. L.; **de Paz Báñez, M. V.**; Tustin, G.; Jones, T. GB2453112-B; US7987912-B2. United States, United Kingdom, Schlumberger —2011-08-02.

(• 2) Universidad de Sevilla, Sevilla, España. “Nueva Composición de Conjugados de Chitosan o derivados con Tiolactonas”. **De Paz Báñez, M. V.**; Jiménez-Castellanos, M. R.; Lucero, M. J.; Casas, M.; Ferris, C. ES2491340, 2015-09-01.