

Date of the CVA	18/02/2021
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Section A. PERSONAL DATA

Name and Surname	Luis García Fernández		
DNI/NIE/Passport		Age	39
Researcher's identification number	Researcher ID	A-7629-2012	
	Scopus Author ID	35262249400	
	ORCID	0000-0002-4179-2556	

* Obligatorio

A.1. Current professional situation

Institution	CIBER BIOINGENIERIA BIOMATERIALES Y NANOMEDICINA (CIBER-BBN)		
Dpt. / Centre			
Address	Rotonda del Comendador 9, 13230, Membrilla		
Phone	(+34) 620309645	Email	luis.garcia@csic.es
Professional category	Doctor	Start date	2019
Keywords	Mechanisms; Peptides and proteins; Enzymatic reactions; Natural products; Synthetic organic chemistry; Pharmaceutics chemistry; Physical-chemistry organic; Cell culture		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Materiales poliméricos (matpol)	Universidad Complutense de Madrid	2010
High Specialization in plastics and rubber	Instituto de Ciencia y Tecnología de Polímeros	2006
Ingeniero Químico Especialidad Ingeniería Bioquímica	Universidad de Castilla-La Mancha	2004

A.3. General quality indicators of scientific production

Date: 17/02/2021

Database: SCOPUS

h-index: 14 (excluded selfcitation)

Sum of the Times Cited: 563

Average citations per article: 20.8

Articles in Q1: 24

Articles in D1: 11

Normalized Impact Factor: 1.516 (2014-2017)

Section B. SUMMARY OF THE CURRICULUM

Luis García Fernández obtained his Bachelor Degree in Chemical Engineering by the University of Castilla la Mancha in 2004. At the beginning of 2005, he obtained a FPI grant for developing his doctoral thesis at the Biomaterials group of the Institute of Polymer Science and Technology (ICTP, CSIC). He obtained his **European PhD degree** with the thesis "Synthesis and development of new antiangiogenic polymers". The thesis was qualified with "**cum laude**" and awarded with the **European Society of Biomaterials Doctoral Award** by the European Society of Biomaterials (ESB). During his PhD he did several **stays in well-recognized European Research Centers** in Italy and Germany and participated in different projects in the field of polymer for drug delivery systems and tissue regeneration.

After the PhD, he spent several years at **Max-Planck Institute for Polymer Research (MPIP)** in Mainz (Germany) where he developed different research lines and collaborations in the field of polymers for biomaterials and their interaction with the cells environment.

In the year 2014, he returned to the Institute of Polymer Science and Technology, developing different innovative research lines based on **tissue regeneration** and new treatments with hydrogels based on natural polymers. In this period, he did a **stay in the Center of Biological Research “Margarita Salas” (CIB-CSIC)** to implement bactericidal studies in different polymer surfaces. In the year 2018 he move to the Centro de Investigaciones Biomédicas en Red (CIBER-BBN) where continue with the research in **tissue regeneration and the development of new technologies for biomedical applications**, being the **principal investigator (PI) of an intramural project** from the CIBER-BBN.

Dr. García-Fernández published **30 research articles (27 SCI, 24 Q1, 11 D1), 5 book chapters** and he is coauthor of **two patents**. He was **in charge of an Erasmus+ Student** from France and, actually, he is **in charge of a PhD student**. He presented in **43 international conferences and 6 national conferences**, being **invited in 7 of the international conferences** and a **warded two times with the best oral communication**.

Dr. García-Fernández has collaborated with the **Universidad San Pablo CEU** teaching in the subject of Tissue Engineering and Advanced Therapies (Biotechnology and Pharmaceuticals degree). He was **Scientific Secretary in two international conferences** with more than 1500 participant and he was **accredited by ANECA** as Profesor Contratado Doctor, Profesor Ayudante Doctor and Profesor de Universidad Privada. Actually, he participates as **scientific evaluator in high impact research journals** being **Guest Editor on a Special Issue** in the journal Polymers (MDPI Journals).

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (n° x / n° y): posición firma solicitante / total autores

- 1 Scientific paper.** Martín-Saldaña, S.; Palao-Suay, R.; Aguilar, M.R.; García-Fernández, L.; Arévalo, H.; Trinidad, A.; Ramírez-Camacho, R.; San Román, J.(4/8). 2018. pH-sensitive polymeric nanoparticles with antioxidant and anti-inflammatory properties against cisplatin-induced hearing loss *Journal of Controlled Release*. Elsevier BV. 28, pp.53-64. ISSN 01683659.
- 2 Scientific paper.** M. Fabbri; L. García- Fernández (AC); B. Vázquez-Lasa; et al; J. San Román. (2/9). 2017. Micro-structured 3D-electrospun scaffolds of biodegradable block copolymers for soft tissue regeneration *European Polymer Journal*. Elsevier Ltd. 94, pp.33-42. ISSN 00143057.
- 3 Scientific paper.** M. J. Salierno; L. García-Fernández; N. Carabelos; K. Kiefer; A.J. García; A. del Campo. (2/6). 2016. Phototriggered fibril-like environments arbitrate cell escapes and migration from endothelial monolayers *Biomaterials*. Elsevier Ltd. 82, pp.113-123. ISSN 01429612.
- 4 Scientific paper.** Nakal-Chidiac, Alberto; García, Olga; García-Fernández, Luis; et al; Rosa Aguilar, María. (3/9). 2020. Chitosan-stabilized silver nanoclusters with luminescent, photothermal and antibacterial properties *Carbohydrate Polymers*. 250, pp.116973-116973. ISSN 0144-8617.
- 5 Scientific paper.** Mora-Boza A.; García-Fernández L. (AC); Barbosa F.A.; Oliveira A.L.; Vázquez-Lasa B.; San Román J.(2/6). 2020. Glycerylphytate crosslinker as a potential osteoinductor of chitosan-based systems for guided bone regeneration *Carbohydrate Polymers*. 241. ISSN 01448617.

- 6 **Scientific paper.** García-Fernández L. (AC); Olmeda-Lozano M.; Benito-Garzón L.; Pérez-Caballer A.; San Román J.; Vázquez-Lasa B.(1/5). 2020. Injectable hydrogel-based drug delivery system for cartilage regeneration *Materials Science and Engineering C*. 110, pp.110702. ISSN 09284931.
- 7 **Scientific paper.** Ruiz-Bermejo, M.; de la Fuente, J.L.; Carretero-González, J.; García-Fernández, L.; Aguilar, M.R.(4/5). 2019. A Comparative Study on HCN Polymers Synthesized by Polymerization of NH₄CN or Diaminomaleonitrile in Aqueous Media: New Perspectives for Prebiotic Chemistry and Materials Science *Chemistry - A European Journal*. Wiley-VCH Verlag. 25-49, pp.11437-11455. ISSN 09476539.
- 8 **Scientific paper.** I. García-Arnáez; B. Palla; J. Suay; F. Romero-Gavilán; L. García-Fernández (AC); M.M. Fernández; I. Goñi; M. Gurruchaga. (5/8). 2019. A single coating with antibacterial properties to prevent medical device-associated infections *European Polymer Journal*. Elsevier Ltd.. 113, pp.289-296. ISSN 0014-3057.
- 9 **Scientific paper.** G.M. Pontes-Quero; L. García-Fernández; M.R. Aguilar de Armas; J. San Román; J. Pérez-Cano; B. Vázquez-Lasa. (2/5). 2019. Active viscosupplements for osteoarthritis treatment *Seminars in Arthritis and Rheumatism*. Elsevier. 49-2, pp.171-183. ISSN 0049-0172.
- 10 **Scientific paper.** V. Ribeiro; S. Pina; J. Costa; et al; L. García-Fernández; R. Reis. (5/11). 2019. Enzymatically crosslinked silk fibroin-based hierarchical scaffolds for osteochondral regeneration *ACS Applied Materials & Interfaces*. ACS Publications. 11-4, pp.3781-3799. ISSN 1944-8252.
- 11 **Scientific paper.** M. Puertas-Bartolomé; M. Fernández-Gutiérrez; L. García-Fernández (AC); B. Vázquez-Lasa; J. San Román. (3/5). 2018. Biocompatible and bioadhesive low molecular weight polymers containing long-arm catechol-functionalized methacrylate *European Polymer Journal*. Elsevier Ltd.. 98, pp.47-55. ISSN 00143057.
- 12 **Scientific paper.** Fabri, M.; Soccio, M.; Costa, M.; et al; García-Fernández, L.; San Román, J.(10/12). 2016. New fully bio-based PLLA triblock copoly(ester urethane)s as potential candidates for soft tissue engineering *Polymer Degradation and Stability*. Elsevier Ltd. 132, pp.169-180. ISSN 01413910.
- 13 **Scientific paper.** Serrano, C.; García-Fernández, L.; Fernández-Blázquez, J.P.; et al; del Campo, A.(2/11). 2015. Nanostructured medical sutures with antibacterial properties *Biomaterials*. ELSEVIER SCI LTD. 52-1, pp.291-300. ISSN 01429612.
- 14 **Scientific paper.** J. Iturri; L. García-Fernández; U. Reuning; A.J. García; A. del Campo; M.J. Salierno. (2/6). 2015. Synchronized cell attachment triggered by photo-activatable adhesive ligands allows QCM-based detection of early integrin binding *Scientific Reports*. Nature Publishing Group. 5, pp.9533. ISSN 20452322.
- 15 **Scientific paper.** J. Iturri; L. Xue; M. Kapp; L. García-Fernández; W.J.P. Barnes; H.-J. Butt; A. del Campo. (4/7). 2015. Torrent Frog-Inspired Adhesives. Attachment to Flooded Surfaces *Advanced Functional Materials*. Wiley-VCH Verlag. 25-10, pp.1499-1505. ISSN 1616301X.
- 16 **Scientific paper.** Fernández-Gutiérrez, Mar; Pérez-Köhler, Bárbara; Benito-Martínez, Selma; et al; García-Fernández, Luis; Bellón, Juan Manuel. (6/9). 2020. Development of Biocomposite Polymeric Systems Loaded with Antibacterial Nanoparticles for the Coating of Polypropylene Biomaterials *Polymers*. 12-8. ISSN 2073-4360.
- 17 **Book chapter.** L. García-Fernández (AC); A. Mora-Boza; F. Reyes-Ortega. (1/3). 2019. pH-responsive polymers: properties, synthesis, and applications *Smart Polymers and Their Applications*. Elsevier. pp.45-86. ISBN 9780081024164.
- 18 **Book chapter.** García-Fernández, L. (AC). (1/1). 2018. Osteochondral angiogenesis and promoted vascularization: New therapeutic target *Advances in Experimental Medicine and Biology*. Springer New York LLC. 1059, pp.315-330. ISSN 0065-2598, ISBN 978-3-319-76735-2.

C.2. Participation in R&D and Innovation projects

- 1 HYDROCARTREG, Chemically crosslinked hyaluronic acid-chitosan scaffolds for potential application on cartilage regeneration after microfracture procedure CIBER BIOINGENIERIA BIOMATERIALES Y NANOMEDICINA (CIBER-BBN). CIBER-TRANSFER. Luis García Fernández. (Instituto de Ciencia y Tecnología de Polímeros). 01/09/2020-31/08/2022. Principal investigator.
- 2 MAT2017-84277-R, Materiales bioinspirados para ingeniería tisular y liberación controlada de componentes bioactivos Ministerio de Economía y Hacienda. Retos para la sociedad. M.R. Aguilar. (Instituto de Ciencia y Tecnología de Polímeros). 01/01/2018-31/01/2020. Team member.
- 3 NADEAFNESS, Preparation and application of eardrops for the inhibition of sensorineural hearing loss CIBER-BBN Technology Transfer Program. María Rosa Aguilar de Armas. (Instituto de Ciencia y Tecnología de Polímeros). 06/2017-05/2019. 120.000 €. Team member.
- 4 HierarchiTech (project2205), Hierarchical Ionic-doped Nanocomposite Scaffolds for Osteochondral Tissue Engineering M-ERA.NET. M-ERA.NET Joint Call 2014. (Instituto de Ciencia y Tecnología de Polímeros). 01/10/2015-30/09/2018. 325.000 €. Team member.
- 5 Innovative biomedical tools for the early diagnosis and treatment of osteoporosis and osteoarthritis Julio San Román del Barrio. (Instituto de Ciencia y Tecnología de Polímeros). 06/2016-08/2018. Team member.
- 6 2016/UEM07, Efecto de las nanopartículas basadas en Vitamina E sobre el desarrollo del Cáncer Escamoso de Cabeza y Cuello en un modelo in vivo Universidad Europea de Madrid. Carolina Sánchez Rodríguez. (Universidad Europea de Madrid). 01/03/2016-28/02/2017. 8.000 €. Team member.
- 7 MAT2014-51918-C2-1-R, Sistemas poliméricos funcionales en medicina regenerativa. Aproximaciones biomiméticas a retos socio-económicos Ministerio de Economía y Hacienda. Retos para la sociedad. J. San Román. (Instituto de Ciencia y Tecnología de Polímeros). 01/01/2015-31/01/2017.

C.3. Participation in R&D and Innovation contracts

- 1 Characterization of new polymeric self assemblies with potent anticancer activity Isabelle Morfin. (European Synchrotron Radiation Facility). 01/04/2016-04/04/2016. 0 €.
- 2 SANS structures of self-assemblies for cancer therapy Maria Rosa Aguilar de Armas. (Institut Laue-Langevin). 01/03/2014-04/03/2014. 0 €.

C.4. Patents

- 1 Luis García Fernández; Blanca Vázquez Lasa; Julio San Román del Barrio; Anna Maria Torrent Gilbert; Eulalia Montell Buenaventura. P201731218. Hidrogel biocompatible, procedimiento de preparación y uso del mismo Spain. 16/10/2017. Consejo Superior de Investigaciones Científicas. Bioibérica, S.A.; Instituto de Ciencia y Tecnología de Polímeros.
- 2 Julio San Roman del Barrio; Blanca Vázquez Lasa; Luis García Fernández; Ana Mora Boza; Ana Leite Oliveira; Filipe Alexandre Monteiro Barbosa. P201730794. Novel crosslinker agents from phytic acid Spain. 13/06/2017. Consejo Superior de Investigaciones Científicas. Instituto de Ciencia y Tecnología de Polímeros; Universidade Católica Portuguesa.