

Date of the CVA

11/06/2019

Section A. PERSONAL DATA

Name and Surname	Fernando Benito López		
DNI	50103771L	Age	41
Researcher's identification number	Researcher ID	H-5436-2015	
	Scopus Author ID	8572239200	
	ORCID	0000-0003-0699-5507	

A.1. Current professional situation

Institution	Universidad del País Vasco		
Dpt. / Centre	Química Analítica / Facultad de Ciencia y Tecnología Química Analítica		
Address	Facultad de Farmacia, Dpto. Zoología y Biología Celular Animal, Paseo de la Universidad, 7, 01006, Vitoria-Gasteiz		
Phone	(0034) 659147799	Email	fernando.benito@ehu.eus
Professional category	Principal Investigator, Biomix & Microfluidics Cluster UPV/EHU	Start date	2019
UNESCO spec. code			
Keywords			

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

Bachelor/Master/PhD	University	Year
Química Supramolecular y Nanotecnología	MESA+ Institute for Nanotechnology, University of Twente	2007
Diploma de estudios avanzados	Universidad Autónoma de Madrid	2002
Licenciado en Química	Universidad Autónoma de Madrid	2000

A.3. General quality indicators of scientific production

H-factor 25 (Scopus), > 1700+ citations.

74 peer-reviewed journal publications (49 Q1, 10 Q2).

1 book (doctoral thesis) and 5 invited book chapters.

55 Peer Reviewed Proceedings Articles (High International Relevance).

6 patent applications: 2 active, 3 filed but abandoned, 1 filled but withdrawn.

3 cover articles.

84 Oral presentations (39 Invited Talks), 79 Poster Contributions.

Cited in Press (New Scientist, L'Expansion, Sunday Times, The Irish Times, ...)

5 PhD students doctoral thesis supervised and 5 PhD doctoral thesis in progress.

Awarded >2.5 M€ so far.

Member of the Editorial Board of "Journal of Sensors" and "Sensors".

Reviewer for several internationally recognised journals. Reviewer for the EU commission and ANECA Spain.

Section B. SUMMARY OF THE CURRICULUM

Dr. Fernando Benito-Lopez studied chemistry at the Universidad Autonoma de Madrid and completed his master studies in the Department of Inorganic Chemistry in 2002. He obtained his PhD at the University of Twente, The Netherlands, in 2007. He carried out his postdoctoral research in the group of Prof. Dermot Diamond at Dublin City University, Dublin, where in 2010, he became Team Leader in polymer microfluidics. In 2012 he moved to CIC microGUNE a Research Centre working in Microtechnology in Spain. From 2015 he is Ramón y Cajal Fellow and leader of the Microfluidics Cluster UPV/EHU at the University of the Basque Country, Spain.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 **Scientific paper.** A. Espona-Noguera; et al. 2019. Type 1 Diabetes Mellitus Reversal Via Implantation of Magnetically Purified Microencapsulated Pseudoislets Int. J. Pharm.560, pp.65-77.
- 2 **Scientific paper.** N. Gil-González; et al. 2018. AZO Embedded IDEs for Monitoring Stimuli Responsive Materials Adv. Funct. Mat.28, pp.1803127.
- 3 **Scientific paper.** N. Gil-Gonzalez; et al. 2018. Characterization of Ionogels Actuation by Electrochemical Impedance Spectroscopy Sens. Actuators B. 260, pp.380-387.
- 4 **Scientific paper.** T. Akyazi; et al. 2018. Driving Flows in Microfluidic Paper-Based Analytical Devices with a Cholinium Based Poly Ionic Liquid Hydrogel Sens. Actuators B. 261, pp.372-378.
- 5 **Scientific paper.** A. Dunne; et al. 2018. Micro-capillary Coatings Based on Spiropyran Polymeric Brushes for Metal Ion Binding, Detection and Release in Continuous Flow Sensors. MDPI. 18-1083, pp.1-12.
- 6 **Scientific paper.** R. Lanfranco; et al. 2018. Phantom Membrane Microfluidic Cross-Flow Filtration Device for the Direct Optical Detection of Water Pollutants Sens. Actuators B. 257, pp.924-930.
- 7 **Scientific paper.** P.P. Campos; et al. 2018. Photoswitchable Layer-by-layer Coatings Based on Photochromic Polynorbornenes Bearing Spiropyran Side Groups Langmuir. ACS. 34, pp.4210-4216.
- 8 **Scientific paper.** J. Saez; et al. 2018. Reusable Ionogel-based Photo-actuators in a Lab-on-a-disc, Sens. Actuators B. 257, pp.963-970.
- 9 **Scientific paper.** T. Akyazi; L. Basabe-Desmonts; F. Benito-Lopez. 2018. Review on Microfluidic Paper-based Analytical Devices towards Commercialisation Anal. Chim. Acta. 1001, pp.1-17.
- 10 **Scientific paper.** T. Akyazi; et al. 2017. Manipulation of Fluid Flow Direction in Microfluidic Paper-Based Analytical Devices with an Ionogel Negative Passive Pump Sens. Actuators B. Elsevier. 247, pp.114-123.
- 11 **Scientific paper.** E. Azuaje-Hualde; et al. 2017. Micromachines Designing Microtechnologies for High Throughput Cell Analysis. MDPI. 8-166, pp.1-21.
- 12 **Scientific paper.** A. Tudor; et al. 2017. Poly(ionic Liquid) Thermo-responsive Hydrogel Microfluidic Actuators Sens. Actuators B. Elsevier. 247, pp.749-755.
- 13 **Popular science article.** J. Saez; L. Basabe-Desmonts; F. Benito-Lopez. 2018. Materiales Funcionales en Dispositivos Microfluídicos como Sensores y Actuadores para Plataformas de Análisis de Aguas Actualidad Analítica, Boletín de la Sociedad Española de Química Analítica. Sociedad Española de Química Analítica. 63, pp.32-35.
- 14 **Popular science article.** J. Etxebarria-Elezgarai; F. Benito-Lopez; L. Basabe-Desmonts. 2017. IkerGazte, II. IkerGazte nazioarteko ikerketa euskaraz, Kongresuko bilduma, Ingeniaritza eta Arkitektura Gailu mikrofluidiko analitikoetarako osagaien garapen eta azterketa,. pp.67-74.
- 15 **Popular science article.** M. Garcia-Hernando; et al. 2017. IkerGazte, II. IkerGazte nazioarteko ikerketa euskaraz, Kongresuko bilduma, Osasun Zientziak Zelulen banan-banako atxikipena lortzeko “Microcontact Printing” teknikaren garapena,. pp.145-152.
- 16 **Book chapter.** O. Parlak; et al. 2019. Wearable Biosensors and Sample Handling Strategies Chapter 7 of Wearable Bioelectronics, Ed: Anthony Turner, Alberto Salleo, Onur Parlak. Elsevier, ISBN: 9780081024072.
- 17 **Book chapter.** T. Akyazi; et al. 2018. Smart Ionic Liquids Applications of Ionic Liquid Materials in Microfluidic Devices. Royal Society of Chemistry, Smart Materials Ed: Ali Eftekhari. pp.234-271. ISBN 978-1-78801-181-5.
- 18 **Review.** J. Ter Schiphorst; et al. 2018. Light-responsive polymers for microfluidic applications Lab on a Chip. RSC. 18, pp.699-709.

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

- 1 MAMI Magnetics and Microhydrodynamics - from guided transport to delivery (H2020-MSCA-ITN-ETN-766007), European Union). 2018-2022. 3.757.056,48 €.
- 2 DNASURF Molecular diagnostics through DNA modification and interfacial engineering ((H2020-MSCA-RISE-778001), European Union). 2018-2021. 499.500 €.
- 3 MINECO, Excelencia (BIO2016-80417-P, PLATAFORMA MICROFLUIDICA DE CRIBADO DE ALTO RENDIMIENTO PARA ESTUDIOS ADHERENTES) Fernando Benito-Lopez. (Universidad del País Vasco). 30/11/2016-29/11/2019. 80.000 €.
- 4 Ramón y Cajal Fernando Benito López. (Universidad del País Vasco). 01/12/2013-14/11/2018. 310.000 €.
- 5 Departamento de Salud del Gobierno Vasco (Nueva estrategia terapéutica dual para enfermedades hepáticas poliquísticas: inhibidores de HDAC6 derivados del UDCA (HDAC6i-UDCA)) Charles Lawrie. (Universidad del País Vasco). 01/01/2016-30/11/2017. 54.750 €.
- 6 NAPES FP7 Programa Marco. D. Diamond. (CIC MicroGUNE). 01/12/2013-31/05/2017. 3.300.000 €.
- 7 Elkartek: Investigación estratégica y desarrollo tecnológico en nanomedicina: aplicación a cultivo celular, diagnóstico y terapia de enfermedades infecciosas y cáncer (Proyecto B KK-2015/00088)) Gobierno Vasco. Luis Liz Marzan. (Universidad del País Vasco). 2016-2017. 1.652.675 €.
- 8 Ionophore-Based Sensor Network (IBS-Network) Aleksander Radu. (People: Marie Curie Actions: FP7, International Research Staff Exchange Scheme). 2013-2017. 279.300 €.
- 9 Elkartek: Investigación estratégica y desarrollo tecnológico en nanomedicina: aplicación a cultivo celular, diagnóstico y terapia de enfermedades infecciosas y cáncer (Proyecto B KK-2015/00088)) Gobierno Vasco. Luis Liz Marzan. (Universidad del País Vasco). 2015-2016. 1.652.675 €.
- 10 MicroCHEAP (IE14-391) Gobierno Vasco. Fernando Benito Lopez. (CIC microGUNE). 2014-2015. 400.000 €.
- 11 MicroSCALE (IE13-360) Gobierno Vasco. Nuria Gisbert. (CIC microGUNE). 2013-2014. 400.000 €.
- 12 ATWARM: Advanced Technologies for Water Resource Management Marie Curie Initial Training Network funded by the EC FP7 People Programme. Dermot Diamond. (Dublin City University). 01/12/2009-30/11/2013. 3.500.000 €.
- 13 CLARITY: Centre for Sensor Web Technology Science Foundation Ireland (SFI). (Dublin City University). 01/11/2007-01/11/2012.
- 14 Adaptive Information Cluster Award Science Foundation Ireland (SFI COHESION). Dermot Diamond. (Dublin City University). 01/06/2007-31/10/2007. 4 €.
- 15 Estudio de la electrooxidación de metanol y etanol sobre electrodos de grafito pirolítico modificados por medio de compuestos organometálicos polinucleares comunicados electrónicamente Jaime González-Velasco. (Ministerio de Ciencia y Tecnología (Proyecto BQU2002-02522)). 01/06/2000-07/09/2002. 27 €.

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

C.4. Patents

- 1 J. Saez; F. Benito-lopez. P201631376. Dispositivo Microfluídico Portátil para Detectar Nitrito-Nitrato Spain. 26/10/2016. Universidad del País Vasco.
- 2 Fernando Benito Lopez; Shirley Coyle; Robert Byrne; Dermot Diamond. pH Sensitive Wound Dressing Ireland. 12/10/2012. Dublin City University.
- 3 Dermot Diamond; Fernando Benito López; Demian Maher; Monika Czugala; Kevin Fraser. Centrifugal Microfluidic Analysis System United Kingdom. 25/04/2012. Dublin City University.
- 4 J.L. Garcia Cordero; J. Ducree; L Lee; A Ricco; F. Benito López. Fluidic Single Use Valve and Microfluidic Systems Incorporating Said Valve United Kingdom. 25/01/2010. Dublin City University.

- 5 R. Byrne; F. Benito López; D. Diamond. Photoresponsive Ionogel United States of America. 18/03/2009. Dublin City University.
- 6 F. Benito López; R. Byrne; D. Diamond. pH Sensor Device Comprising an Ionogel United Kingdom. 18/03/2009. Dublin City University.