Date	01/05/2023

Part A. PERSONAL DATA

Name	JORGE BARROS VELÁZQUEZ		
ID Card		Age	
Researcher identification code	Scopus code		
	Orcid code		

A.1 Current professional situation

Employer	UNIVERSITY OF SANTIAGO DE COMPOSTELA		
Department College	ANALYTICAL CHEMISTRY, NUTRITION AND FOOD SCIENCE COLLEGE OF VETERINARY SCIENCES/COLLEGE OF PHARMACY		
Address	College of Pharmacy, Vida Campus, E-15782, SANTIAGO DE COMPOSTELA (LA CORUNA)		
Phone	+34698157927	E-mail address	jorge.barros@usc.es
Professional situation	FULL PROFESSOR	Since	November/2007
UNESCO codes	3309, 2414		
Key words	Food safety, food microbiology, foodomics, food preservation, food fermentation, microbial identification, food technology, food authenticity		

A.2 Academic background

Degree/Ph.D./post-doc	University	
Pharmacy degree	UNIVERSITY OF SANTIAGO	1988
Food Microbiology, Ph.D.	UNIVERSITY OF SANTIAGO	1992
Post-doc	UCC, CORK (IRELAND)	1993
Post-doc	IIM-CSIC, VIGO (SPAIN)	1997

A.3 Indicators of scientic production

- Citations (total): 8.500 (scholar-google, ScG); 5.485 (scopus, Sco)
- Citations per year (last five years): 630 (ScG), 410 (Sco)
- Publications in Q1 journals: 90
- H index: 57 (ScG); 43 (Sco)

Part B. SCIENTIFIC ACTIVITY

B.1 Summary

- Author of more than 180 publications in international journals of the JCR-SCI.
- Author of more than 40 book chapters in international books.
- Director of more than 30 research projects and participant in other 15.
- Supervisor of 13 Ph.D. theses + 2 under development.

B.2 Current research lines

- Food biotechnology
- Proteomic tools for food safety and authenticity
- Development of micro- and nano-based methods for the molecular analysis of foods
- Characterization of bioactive compounds from food by-products
- Development of novel natural preservation methods for the food industry
- Bacteriocins and other natural antimicrobial substances for food preservation

B.3 Other merits

- Editor-in-Chief, Sustainable Food Technology (Royal Society of Chemistry): 2022-currently
- Associate Editor, Food and Bioprocess Technology (Springer, I,f: 4,56, Q1): 2010-2015

- Editor, Food and Bioprocess Technology (Springer): 2015-2022
- Editor: Journal of Chemistry (Hindawi), Journal of Food Quality (Hindawi-Wiley): 2014-currently
- Editorial Board Member: Microorganisms, Animals, Foods, Recent Patents in Biotechnology, American Journal of Microbiology
- Editor of the book Antimicrobial Food Packaging (Elsevier, 2016)
- Editor of the book Foodomics: Omics Application in Food Science (Royal Society of Chemistry, London, 2021)
- Expert member of the National Board for FPU post-graduate fellowships, Food Science and Technology area: 2016 (Spanish Ministry of Education).
- Coordinator of the National Board for FPU post-graduate fellowships, Food Science and Technology area: 2017-currently (Spanish Ministry of Education).
- Expert member of the Board for the National Evaluation of Associate Professors, Food Science, Technology and Engineering area: 2010-currently. (Spanish Ministry of Education).
- Expert member of the Board for the National Evaluation of Scientific Projects: 2005-currently. (Spanish Ministry of Education).
- Evaluator of Scientific Projects since 2005 for the following administrations:
    - - SIBR Program: U.S.A.
    - - K.F.A.S Program: Kuwait.
    - - AQU Catalunya, Spain
    - - ACSUCYL: Castilla y León, Spain
    - - National Program: Poland.
    - - European projects: partnerships between Romania and other countries
- Member of the editing commission of the Biotechnology Degree (USC, 2014-2016)
- Member of the academic commission of the Biotechnology Master (USC, 2003-2014)
- Member of the academic commission of the Food Innovation Master (USC, 2007-2014)

C. RELEVANT MERITS OF SCIENTIFIC PRODUCTION

C.1 Selected publications in SCI-JCR journals (last 3 years)

J. Carvalho, S. Azinheiro, R. Negrinho, A. Garrido-Maestu, J. Barros-Velazquez and M. Prado. Novel approach for accurate minute DNA quantification on microvolumetric solutions. Microchemical Journal 138: 540-549. 2018

J. Carvalho, G. Puertas, J. Gaspar, S. Azinheiro, L. Dieguez, A. Garrido-Maestu, M. Vázquez, J. Barros-Velazquez, S. Cardoso and M. Prado. High efficient DNA extraction and purification from olive oil on a washable and reusable miniaturized device. Analytica Chimica Acta 1020: 30-40. 2018

J. Carvalho, R. Negrinho, S. Azinheiro, A. Garrido-Maestu, J. Barros-Velázquez, and M. Prado. Data on minute DNA quantification on microvolumetric solutions: comparison of mathematical models and effect of some compounds on the DNA quantification accuracy. Data in Brief 21: 424-431. 2018

El-Jeni, K. Boehme, M. Elbour, P. Calo-Mata, J. Barros-Velázquez and B. Bouhaouala-Zahar. Rapid genus identification of selected lactic acid bacteria isolated from *Mugil cephalis* and *Oreochromis niloticus* organs using MALDI-TOF. Annals of Microbiology (doi.org/10.1007/s13213-018-1357-8). 2019

M.E. Alnakip, M. Quintela-Bajula, K. Boehme, S. Caamaño-Antelo, M.A. Bayoumi, R.M. Kamal, P. Calo-Mata and J. Barros-Velazquez. Molecular characterization and typing the methicillin-resistance of *Staphylococcus* spp. isolated from raw milk and cheeses in Spain: a mini survey. International Dairy Journal 89: 68-76. 2019

K. Böhme, J. Barros-Velazquez, P. Calo-Mata and I. Ortea. Recent applications of omics-based technologies to main topics in food authentication. Trends in Analytical Chemistry 110: 221-232. 2019

K. Böhme, J. Barros-Velazquez, P. Calo-Mata and I. Ortea. Review on recent DNA-based methods for main food authentication topics. Journal of Agricultural and Food Chemistry 67: 3854-3864. 2019

L. Acuña, N. Corbalán, M. Quintela-Bajula, J. Barros-Velazquez and A. Bellomio. Expression of the hybrid bacteriocin Ent35-MccV inhibits in *Lactococcus lactis* and its use for controlling *Listeria monocytogenes* and *Escherichia coli* in milk. International Dairy Journal 104, 104650 (https://doi.org/10.1016/j.idairyj.2020.104650). 2020

A.G. Abril, J.L. Rodríguez-Rama, M. Carrera, K. Böhme, J. Barros-Velázquez, B. Cañas, T.G. Villa and P. Calo-Mata. Characterization of bacteriophage peptides of pathogenic *Streptococcus* by LC-ESI-MS/MS: bacteriophage phylogenomics and their relationship to their host. Frontiers in Microbiology 11: 1241 https://doi.org/10.3389/fmicb.2020.01241. 2020

A.G. Abril, M. Carrera, K. Böhme, J. Barros-Velázquez, J.L. Rodriguez Rama, P. Calo-Mata, A. Sánchez-Pérez and T.G. Villa. Proteomic characterization of antibiotic resistance, and production of antimicrobial and virulence factors in *Streptococcus* species associated with bovine mastitis. Could enzybiotics represent novel therapeutic agents against these pathogens? Antibiotics 9: 302; https://doi.org/10.3390/antibiotics9060302. 2020

M.E. Alnakip, M. Quintela-Bajula, K. Boehme, S. Caamaño-Antelo, M.A. Bayoumi, R.M. Kamal, P. Calo-Mata and J. Barros-Velazquez. Comparative differentiation of major and minor streptococci incriminated in bovine mastitis by MALDI-TOF MS fingerprinting and 16S rRNA gene sequencing. Research in Veterinary Science 132: 426-438. 2020

A.G. Abril, T.G. Villa, J. Barros-Velázquez, B. Cañas, P. Calo-Mata and M. Carrera. *Staphylococcus aureus* exotoxins in dairy industry, mastitis, and their detection. Toxins 12: 537; doi:10.3390/toxins12090537. 2020

A.G. Abril, M. Carrera, K. Böhme, J. Barros-Velázquez, B. Cañas, J.L. Rodríguez-Rama, T.G. Villa and P. Calo-Mata. Proteomic characterization of bacteriophage peptides from the mastitis producer *Staphylococcus aureus* by LC-ESI-MS/MS and the bacteriophage phylogenomic análisis. Foods 10(4): 799. 2021

Book chapters in the project área (since 2018):

- Authors: J.L Rama, T.G. Villa, J. Barros-Velázquez, P. Blanco and P. Calo-Mata
  Chapter: Wine microbiota identification by MALDI-TOF MS
  Book: Exploring Microorganisms: Recent Advances in Applied Microbiology
  Year: 2018
  ISBN: 1-62734-623-6
  Editorial: Universal Publishers Inc. (Boca Ratón, FL, USA)

Books edited (last five years)

- *Antimicrobial Food Packaging*. 2016. Ed: Elsevier, San Diego, USA. I.S.B.N. 978-0-12-800723-5, 676 pages. (2nd edition under preparation)
- *Foodomics - Novel Omics Technologies in Food Science.* 2021. Ed: Royal Society of Chemistry, London, UK. I.S.B.N.: 978-1788018845, 420 pages.

C.2 Contributions to scientific meetings

- Author of more than 150 contributions to scientific meetings, 90 of them international.

C.3 Scientific projects (selection of nine from last ten years)

- Aplication of ionization mass spectrometry/electrospray for the rapid identification and quantification of food-borne pathogens. National Program of Food Technology and Resources (CICYT). Code: AGL2013-48244R. Dates: 01-06-14/31-12-16. Funding: 108.000 €. P.I. Dr. Pilar Calo-Mata.
- Consolidación y estructuración de LHICA-GI1628 en higiene de los alimentos. 014-PG111). Xunta de Galicia/Consellería de Cultura, Educación e Ordenación Universitaria.

Code: GRC2014/004. Dates: 24/06/2014 31/12/2017. Funding: 320.000,00 €. P.I. Prof. Alberto Cepeda Sáez.

- Gestión y producción sostenible de biorecursos (bioredes). Xunta de Galicia/Consellería de Educación, Universidade e Formación Profesional. Code: 2018-PG0099, Ref. ED431E 2018/09. Dates: 01/01/2018 31/12/2020. Funding: 405.759,16 €. P.I. Prof. Paulino Martínez Portela.
- Selection and characterization of lactic acid bacteria isolated from crude camel milk and producers of antimicrobial compounds for its use in food biopreservation. Spanish Ministry of External Affairs-Spanish Agency of International Cooperation (AECI). Code: A1/0338133/11. Dates: 01-01-12/01-01-13. Funding: 7.700 €. P.I. Prof. Jorge Barros-Velázquez.
- Development of a universal DNA-based biosensor for the rapid diagnostic of microbial pathogens: specific application to bovine production. Spanish MInistry of Science and Innovation, INPACTO Sub-program. Code: IPT-2011-1290-010000. Dates: 01/06/2011-30/05/2014. Funding: 148.920,00 €. P.I. Dr Pilar Calo-Mata.
- Selection and characterization of antimicrobial-producing lactic acid bacteria as potential food biopreservation agents. Spanish Ministry of External Affairs-Spanish Agency of International Cooperation (AECI). Code: C/030828/10. Dates: 01-01-11/01-01-12. Funding: 6.000 €. P.I. Jorge Barros-Velázquez.
- Caracterization of microorganisms from aquacultured fish species from Tunisian coas table to produce bioactive compounds. Spanish Ministry of External Affairs-Spanish Agency of International Cooperation (AECI). Code: 2011/PN075. Dates: 13-12-11/12-12-12. Funding: 25.000 €. P.I.: Dr. Pilar Calo-Mata.
- Development and application of the ligation reaction detection coupled to a universal array for the detection of spoilage and pathogenic bacteria in seafood products. National Program of Food Technology and Resources (CICYT). Code: AGL2010-19646. Dates: 01-07-10/01-07-13. Funding: 108,900 €. P.I.: Dr. P. Calo-Mata.
- Development of a microarray for the rapid identification of emerging pathogens in ready-to-eat and minimally-processed foods. Galician Government-General Research Program. Code: 10PXIB261045PR. Dates: 01-08-10/01-10-13. Funding: 69.689 €. P.I.: Dr. P. Calo-Mata.

C.4 Research contracts with companies (selection of five from last ten years) and Patents

- Development of a valorization system for *Munida* spp. Code: IN841C 2012/82. Dates: 01-10-12/01-10-14. Funding: 27.533 €. P.I.: Jorge Barros-Velázquez.
- Development of an edible film for seafood pacaking. Code: 10TAL048E. Dates: 01-12-10/01-12-13. Funding: 89.946,50 €. P.I.: Jorge Barros-Velázquez.
- Optimization of the quality of fish species from the Grand Sole fishing bank by novel preservation methods. Code: 10TAL018E. Dates: 01-12-10/01-12-12. Funding: 77.021,18 €. P.I.: Jorge Barros-Velázquez.
- Novel seafood products by the combination of radiofrequency and modified atmosphere packaging. Code: 09TAL031E. Dates: 05-12-09/05-12-11. Funding: 73.102,86 €. P.I.: Jorge Barros-Velázquez.
- Inhibition of seafood spoilage by the application of natural compounds with antioxidant and antimicrobial activities. Code: PGIDIT08TAL038E. Dates: 20-11-08/19-11-10. Funding: 107.055 € (+co-funding: 130.845 €). P.I.: Jorge Barros Velázquez

Patents

- Method for the identification of species belonging to the Family Penaoidea by means of DNA analysis. P. Calo-Mata, A. Pascoal, M. Prado, A. Cepeda and J. Barros-Velázquez. Number: 200603211(9). Date: 21-09-2009.