

Date of the CVA	21/01/2021
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Section A. PERSONAL DATA

Name and Surname	Juan Antonio Tamayo Ramos		
DNI/NIE/Passport		Age	
Researcher's identification number	Researcher ID		
	Scopus Author ID	35742168800	
	ORCID	0000-0002-7071-002X	

* Obligatorio

A.1. Current professional situation

Institution	Universidad de Burgos		
Dpt. / Centre			
Address			
Phone		Email	
Professional category	Senior Researcher-PDI	Start date	2016
Keywords			

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

Bachelor/Master/PhD	University	Year
PhD (Molecular and Evolutionary Genetics)	Universitat de València	2011
PhD Specialization Courses: Molecular and Evolutionary Genetics	Universitat de València	2005
MSc in Food Science and Technology	Universidad Politécnica de Valencia	2002
BSc in Agricultural Engineering	Universidad Politécnica de Valencia	2000

A.3. General quality indicators of scientific production

27 of my 29 publications correspond to JCR indexed publications (cites = 920; h-index = 13).

14 of my publications have been cited at least 10 times in the last 5 years.

Most of my JCR publications (23) are included in Q1 of different scientific disciplines: Biotechnology and Applied Microbiology (10), Nanoscience and Nanotechnology (3), Microbiology (2), Biochemistry and Molecular Biology (2), Environmental Science (2), Genetics and Heredity (1), Applied Chemistry (1), Multidisciplinary Sciences (1), Food Science and Technology (1).

The Q1 minimum impact factor in the Biotechnology and Applied Microbiology area is equal to 4,000, while in the Nanosciences and Nanotechnology area is equal to 6,895.

In 20 out of 29 publications (included in the areas = Biotechnology and Applied Microbiology, Microbiology, Biochemistry and Molecular Biology, Nanoscience and Nanotechnology, Genetics and Heredity and Multidisciplinary Sciences) I am either first author or last author (research leader), being corresponding author as well in many of them.

Section B. SUMMARY OF THE CURRICULUM

My scientific career has been developed at IATA-CSIC (Spain; 2003-2009), the Wageningen University and Research (WUR) (The Netherlands; 2009-2015), and the University of Burgos (UBU) (Spain; 2016-). The use of cellular systems for biotechnological applications and nanomaterials toxicology studies in different research fields required the mastering of an array of experimental approaches: from classic microbiology and cellular biology, genetics, molecular biology and biochemistry techniques to the implementation of state of the art technologies employed in life sciences and materials sciences. Along these years, I have acquired expertise in projects funded by regional, national (both Dutch and Spanish), and European institutions, involving SMEs and large enterprises. The results of my investigations in the mentioned research fields have resulted in: (i) many publications on top journals of several disciplines, such as biotechnology, genetics, nanotechnology, materials sciences, environmental sciences, food sciences etc. (i.e. Chemosphere, PLOS Genetics, Frontiers in Microbiology, ACS Applied

Materials and Interfaces, Nanotechnology, Biotechnology for Biofuels, Biotechnology and Bioengineering, Genome Biology, etc.), where I have been either first author or research leader and corresponding author in most of them (20 out of 27), (ii) and in an extended multidisciplinary network of collaborators within the European Union. I have had roles as research group supervisor both at WUR and UBU. Currently, I am involved in several H2020 research projects at UBU, acting as Principal Investigator (PI) and as Project Coordinator of NANOgentools (GA: 691095), GREENER (GA: 826312), DIAGONAL (GA 953152), and ICARUS-INAS (GA: 946174), as PhD student supervisor in MSCA-ITN-SOLUTION (GA 721642), acting as PI for UBU in SURFBIO (GA 952379) and BIOMAC (GA: 952941), as well as supervisor of a postdoctoral researcher within the regional project NANOCOMP (Junta de Castilla y León/FEDER BU058P20). In addition, due to my role as Principal Investigator and Project Coordinator of H2020 funded projects NANOgentools and DIAGONAL, I am part of the EU NanoSafety Cluster Steering Group. Besides my interest for the described scientific fields, I also have a profound interest for education. This is reflected not only in the lecturing activities I have performed in several life sciences fields (functional genomics, fundamental and medical microbiology, human nutrition, etc.) but also in the teaching and learning courses I have followed (particularly at WUR), and in the role I have had in the supervision of BSc, MSc and PhD students. I have had the chance to work as a lecturer at WUR, the University of the Basque Country (Spain), and the International University of Valencia (Spain). In this regard, it is interesting to remark that in 2016 I received a positive evaluation in teaching and research activities from the National Agency for Quality Assessment and Accreditation of Spain (ANECA), to have access (compulsory requirement) to PhD Lecturer (Profesor Contratado Doctor), PhD assistant Lecturer (Profesor Ayudante Doctor) and Lecturer (Profesor de Universidad Privada) positions in public and private Spanish universities. Finally, I have acquired expertise as well in the organization of International Workshops and MOOCs.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores

- 1 **Scientific paper**. 2021. Toxicological assessment of commercial monolayer tungsten disulfide nanomaterials aqueous suspensions using human A549 cells and the model fungus *Saccharomyces cerevisiae* *Chemosphere*. Elsevier. 129603.
- 2 **Scientific paper**. 2021. Assessment of Physico-Chemical and Toxicological Properties of Commercial 2D Boron Nitride Nanopowder and Nanoplatelets *International Journal of Molecular Sciences*. MDPI. 21-1.
- 3 **Scientific paper**. 2020. Commonalities and Differences in the Transcriptional Response of the Model Fungus *Saccharomyces cerevisiae* to Different Commercial Graphene Oxide Materials *Frontiers in Microbiology*. Frontiers. 11-1943.
- 4 **Scientific paper**. 2020. Toxicological evaluation of MnAl based permanent magnets using different in vitro models *Chemosphere*. Elsevier. 128343.
- 5 **Scientific paper**. 2020. Fate assessment of commercial 2D MoS₂ aqueous dispersions at physicochemical and toxicological level *Nanotechnology*. IOP Publishing. 445101.
- 6 **Scientific paper**. 2020. Toxicological response of the model fungus *Saccharomyces cerevisiae* to different concentrations of commercial graphene nanoplatelets *Scientific Reports*. Nature. 10-3232.
- 7 **Scientific paper**. 2020. Interaction analysis of commercial graphene oxide nanoparticles with unicellular systems and biomolecules *International Journal of Molecular Sciences*. MDPI. 21-1.
- 8 **Scientific paper**. 2019. *Aspergillus niger* citrate exporter revealed by comparison of two alternative citrate producing conditions *FEMS Microbiology Letters*. Oxford University Press.
- 9 **Scientific paper**. 2018. Analysis of polycaprolactone microfibers as biofilm carriers for biotechnologically relevant bacteria *ACS Applied Materials & Interfaces*. ACS. 10-38.
- 10 **Scientific paper**. 2018. Colonization of Electrospun Polycaprolactone Fibers by Relevant Pathogenic Bacterial Strains *ACS Applied Materials & Interfaces*. ACS. 10-14.

- 11 **Scientific paper.** 2018. Forward genetics by genome sequencing uncovers the central role of the *Aspergillus niger* *goxB* locus in hydrogen peroxide induced glucose oxidase expression *Frontiers in Microbiology*. *Frontiers Media*. 9-2269.
- 12 **Scientific paper.** 2018. Influence of three commercial graphene derivatives on the catalytic properties of a *Lactobacillus plantarum* alpha-L-rhamnosidase when used as immobilization matrices *ACS Applied Materials & Interfaces*. *ACS*. 10-21.
- 13 **Scientific paper.** 2017. *Aspergillus niger* secretes citrate to increase iron bioavailability. *Frontiers in Microbiology*. *Frontiers Media*. 8-1424.
- 14 **Scientific paper.** 2017. Comparative proteomics of *Rhizopus delemar* ATCC 20344 unravels the role of amino acid catabolism in fumarate accumulation *PeerJ*. *PeerJ*. 5-e3133.
- 15 **Scientific paper.** 2017. Structure and function of *Aspergillus niger* laccase McoG *Biocatalysis*. *De Gruyter*. 3-1-16.
- 16 **Scientific paper.** 2016. Identification and functional characterization of novel xylose transporters from the cell factories *Aspergillus niger* and *Trichoderma reesei*. *Biotechnology for Biofuels*. *Biomed Central*. 9-148.
- 17 **Scientific paper.** 2016. Identification of a Novel L-rhamnose Uptake Transporter in the Filamentous Fungus *Aspergillus niger* *PLOS Genetics*. *PLOS*. 12-e1006468.
- 18 **Scientific paper.** 2015. *Aspergillus niger* membrane-associated proteome analysis for the identification of glucose transporters *Biotechnology for Biofuels*. *Biomed Central*. 8-150.
- 19 **Scientific paper.** 2014. Enhanced glycosyl hydrolase production in *Aspergillus nidulans* using transcription factor engineering approaches. *Biotechnology for Biofuels*. *Biomed Central*. 7-103.
- 20 **Scientific paper.** 2014. Heterologous expression of *Gaeumannomyces graminis* lipoxigenase in *Aspergillus nidulans* *AMB Express*. *Springer*. 4-65.
- 21 **Scientific paper.** 2013. Enhanced production of *Aspergillus niger* laccase-like multicopper oxidases through mRNA optimization of the glucoamylase expression system. *Biotechnology and Bioengineering*. *Wiley Periodicals*. 11, pp.543-551.
- 22 **Scientific paper.** 2013. Overexpression of a modified 6-phosphofructo-1-kinase results in an increased itaconic acid productivity in *Aspergillus niger*. *AMB Express*. *Springer*. 3-57.
- 23 **Scientific paper.** 2012. Application of *Bifidobacteria* as starter culture in whole wheat sourdough breadmaking. *Food and Bioprocess Technology*. *Springer*. 5, pp.2370-2380.
- 24 **Scientific paper.** 2012. Biocatalytic potential of laccase-like multicopper oxidases from *Aspergillus niger*. *Microbial Cell Factories*. *Biomed Central*. 11-165.
- 25 **Scientific paper.** 2012. L-Rhamnose induction of *Aspergillus nidulans* ?-L-rhamnosidase genes is glucose repressed via a CreA-independent mechanism acting at the level of inducer uptake. *Microbial Cell Factories*. *Biomed Central*. 11-26.
- 26 **Scientific paper.** 2012. Novel Phytases from *Bifidobacterium pseudocatenulatum* ATCC 27919 and *Bifidobacterium longum* subsp. *infantis* ATCC 15697. *Applied and Environmental Microbiology*. *American Society for Microbiology*. 78, pp.5013-5015.
- 27 **Scientific paper.** 2011. Comparative genome sequence analysis underscores mycoparasitism as the ancestral life style of *Trichoderma*. *Genome Biology*. *Biomed Central*. 12-R40.
- 28 **Scientific paper.** 2011. The *Aspergillus niger* multicopper oxidase family: analysis and overexpression of laccase-like encoding genes. *Microbial Cell Factories*. *Biomed Central*. 10-78.
- 29 **Scientific paper.** 2009. Phytate reduction in bran-enriched bread by phytase-producer *bifidobacteria*. *Journal of Agricultural and Food Chemistry*. *ACS Publications*. 57, pp.10239-10244.

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

- 1 BIOMAC (European Sustainable BIObased nanoMAterials Community) Grant agreement ID: 952941 HORIZON 2020. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/01/2021-31/12/2024. 366.750 €.
- 2 DIAGONAL (Development and scaled Implementation of sAfe by design tools and Guidelines for multicOmponent aNd hArn nanomaterials) Grant agreement ID: 953152 HORIZON 2020. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/05/2021-31/10/2024. 509.130 €.

- 3 SURFBIO (INNOVATION HUB FOR SURFACE AND COLLOID BIOLOGY RESEARCH) Grant agreement ID: 952379 HORIZON 2020. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/12/2020-30/10/2023. 175.000 €.
- 4 NANOCOMP:DEVELOPMENT OF SAFE BY DESIGN TOOLS AND RECOMMENDATIONS FOR COMPLEX NANOMATERIAL FORMULATIONS. BU058P20 PROGRAMA OPERATIVO FEDER 2014 - 2020 DE CASTILLA Y LEÓN. (Universidad de Burgos). 01/11/2020-30/10/2023. 264.000 €.
- 5 GREENER (InteGRated systems for Effective ENvironmEntal Remediation) Grant agreement ID: 826312 HORIZON 2020. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/03/2019-28/02/2023. 517.501 €.
- 6 LIGHTME (An Open Innovation Ecosystem for upscaling production processes of lightweight metal alloys composites) Grant agreement ID: 814552 HORIZON 2020. (Universidad de Burgos). 01/01/2019-31/12/2022. 303.625 €.
- 7 BIOREM; CONVOCATORIA EUROPA INVESTIGACIÓN 2019, REFERENCIA: -EIN2020-112403 (Universidad de Burgos). 01/06/2020-31/05/2022. 15.000 €.
- 8 ICARUS-INAS (Integrated Nanostructures Assessment-Service for the biological impact analysis of nanostructures) Grant agreement ID: 946174 HORIZON 2020. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/12/2020-30/11/2021. 100.000 €.
- 9 CATALIZADOR DE PROYECTOS EUROPEOS: ITN SURFBIO; CONVOCATORIA EUROPA INVESTIGACIÓN 2019, REFERENCIA: EIN2019-103397 Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/06/2019-31/05/2021. 12.700 €.
- 10 CO2 absorbing Materials Project- RISE H2020-MSCA-RISE-2016. (Universidad de Burgos). 01/03/2017-28/02/2021. 207.000 €.
- 11 SOLUTION - Solid lubrication for emerging engineering applications GA 721642 H2020-MSCA-ITN-2016. (Universidad de Burgos). 01/02/2017-31/01/2021. 495.745 €.
- 12 NANOAGENTOOLS H2020-MSCA-RISE-2015. Juan Antonio Tamayo Ramos. (Universidad de Burgos). 01/01/2016-31/12/2019. 139,5 €.
- 13 NOVel, critical materials free, high Anisotropy phases for permanent MAGnets, by design H2020-NMP-2015-two-stage. (Universidad de Burgos). 01/04/2016-30/09/2019. 497.875 €.
- 14 ICARUS (Innovative Coarsening-resistant Alloys with enhanced Radiation tolerance and Ultra-fine -grained Structure for aerospace application) Grant agreement ID: 713514 HORIZON 2020. (Universidad de Burgos). 01/09/2016-31/08/2019. 454.750 €.
- 15 NANOBIO-FIBERSAFE: AVANCES EN NANOBIOFÍSICA DEL ADN, NANOFIBRAS Y EVALUACIÓN DE LA NANOSEGURIDAD DE MATERIALES-BU079U16 PROGRAMA OPERATIVO FEDER 2014 - 2020 DE CASTILLA Y LEÓN. (Universidad de Burgos). 01/09/2016-31/08/2018. 120.000 €.

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

- 1 Contract for the management of the Digital Innovation Hub on Livestock, Environment, Agriculture and Forest 2021-01/01/2022. 12.000 €.
- 2 Contract for the toxicological evaluation of Ni alloys debris particles within the research project NEMARCO 2021-01/01/2022. 10.000 €.
- 3 Contract with the Linnaeus University for the review and evaluation of results and reports derived from the H2020 project PreCoM 2021-01/01/2022. 5.000 €.

C.4. Patents

- 1 WO2014/142647A1. Fungals strains with improved citric acid and itaconic acid production Holland. 2014. WAGENINGEN UNIVERSITY.
- 2 201030438. Truncated phytases of bifidobacteria and uses thereof Spain. 2013. CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS (CSIC).