Fecha del CVA	28/03/2023

Part A. PERSONAL INFORMATION

First name	NIEVES			
Family name	ABRIL	DÍAZ		
Social Security, Passport, ID number				
e-mail	bb1abdim@uco.es		URL Web	
Open Researcher and Contributor ID (ORCID) (*)			0000-0001-8248-8561	

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	February 2021		
Institution	University of Cordoba		
Department/Center	Biochemistry and Molecular Biology		
Country	Spain	Teleph. number	
Key words	Gene expression, transcriptomics, real-time qRT-PCR, proteomics, redox proteomics, metabolomics, environmental toxicology, pesticides, emerging pollutants, metals, oxidative stress, nutraceuticals		

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
May 2000-Jan 2021	Associate Professor. Dpt Biochemistry & Molecular Biology. University of Cordoba. Spain. Procurement of a Full Professorship position by competitive examination
Jun 1994-Abril 2000	Assistant Professor. Dpt Biochemistry and Molecular Biology. University of Cordoba. Spain. Procurement of an Associate Professorship position by competitive examination
Jan-Dec 1995	Postdoctoral Fellowship. Paterson Inst. Cancer Research. Manchester, UK
Oct 1988-Jun 1994	Fellowship, Dpt Genetics and Biochemistry & Molecular Biology. University of Cordoba. Spain. Procurement of an Assistant Professorship position by competitive examination

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Doctor in Biological Sciences	University of Cordoba. Spain	1988
Graduate in Biological Sciences	University of Cordoba. Spain	1984

A.4. General indicators of scientific production quality

- Number of six-year research awards: , last year evaluated 2021
- Number of five-year teaching periods: , last year evaluated in 2014.
- Number of five-year periods recognized by the Junta de Andalucía: 5, last year evaluated 2019.
- Number of doctoral theses supervised in the last 10 years: 3
- Articles in ORCID: 72. Total citations: 956 (Scopus); 1343 (Google Scholar). Average number of citations/year 27 (Research ID).
- Publications in JCR journals in the last 10 years: 41
o in first quartile (Q1): 35; in first decile (D1): 25
- h-index in Scopus = 19; in Google Scholar = 22

Part B. CV SUMMARY

Degree in Sciences, Biological Section, University of Cordoba (UCO, 1984, Extraordinary Award), PhD from the same university in 1988 (Outstanding CUM LAUDE). Postdoctoral period (Improvement Scholarship; CEE and Junta de Andalucía, JA) investigating the presence of mutagens in fish and mollusks for human consumption (3 articles) and the genotoxic effects of environmental pollutants (3 articles in Carcinogenesis). In 1995, stay at

the Paterson Inst. for Cancer Research (Christie Hospital, Manchester, UK) (PFPI grant, MEC) investigating the usefulness of ATases in gene therapy. In 1996, incorporation to the UCO Biochemistry Department, initiating a new line of research for the identification of molecular biomarkers for monitoring environmental pollution, using modern omic methodologies and bioinformatics analysis with organisms of great environmental interest, (>20 articles, several more in preparation and 3 theses in which I have been director or co-director and that have deserved the qualification cum laude). In recent years, studies with species of interest in aquaculture (2 articles), environment (oak, 3 articles and 1 thesis) and animal health (6 articles) and human health (4 articles). Also, study of the effects of contamination on reproduction and offspring, as well as the search for phytoactive compounds in halophytes (salicornia), grape derivatives and olive by-products (alperujo), which are giving excellent results in terms of their hepatoprotective and anti-aging capacity. In summary, a scientific production of >70 articles, 17 book chapters, more than 100 participations in national and international congresses; researcher in >30 research projects of public calls, PI of the Excellence Project BIO-1657 of the Andalusian Government and Co_IP of the projects PGC2018-096608-B-C21 (MINECO, conv 2018) and of the project PID2021-123073NB-C21(MINECO, conv 2021); recognized 5 sexenios of research, the last one dated 01/01/2022 and 6 sexenios of teaching.

Part C. RELEVANT MERITS

C.1. Publications (scientific journals indexed in JCR, 2019-2023)

1. Rodríguez Moro, G., **Abril, N.**, Jara Biedma, R., Ramirez-Acosta, S, Gómez-Ariza, J.L. García-Barrera, T. **(2019**) Metabolic Impairments Caused by a "Chemical Cocktail" of DDE and Selenium in Mice Using Direct Infusion Triple Quadrupole Time-of-Flight and Gas Chromatography-Mass Spectrometry. Chemical Research in Toxicology, 32(10), 1940-1954. **DOI:** 10.1021/acs.chemrestox.9b00102. (**Q2**)

2. Pacheco, I. L., **Abril, N.,** Zafra, R., Morales-Prieto, N., Hernández, V. M., Ruiz, M. T., Perez-Caballero, R., Martínez-Moreno, A., & Pérez, J. **(2019)**. Identification of reference genes for real-time PCR cytokine gene expression studies in sheep experimentally infected with Fasciola hepatica. Scientific Reports, 9(1), 1485. DOI: 10.1038/s41598-018-37672-7. (**Q1**)

3. M**oral**es-Prieto N, López de Lerma N, Pacheco IL, Huertas-Abril PV, Pérez J, Peinado R, **Abril N (2020)** Protective effect of Pedro-Ximénez must against p,p´-DDE-induced liver damages in aged Mus spretus mice. Food and Chemical Toxicology, 136, 110984. DOI: 10.1016/j.fct.2019.110984. (**Q1**)

4. Morales-Prieto N, Huertas-Abril PV, López de Lerma N, Pacheco IL, Pérez J, , Peinado R, **Abril N (2020).** Pedro Ximenez sun-dried grape must: a dietary supplement for a healthy longevity. Food & Fucntion, 11, 4387-4402. DOI: 10.1039/d0fo00204f (**Q1**).

5. Fernández-Montero, Á., orrecillas S, Montero D, Acosta F, Prieto-Álamo MJ, Abril N, Jurado J. (**2021**) Proteomic profile and protease activity in the skin mucus of greater amberjack *(Seriola dumerili)* infected with the ectoparasite *Neobenedenia girellae* - An immunological approach. Fish & Shellfish Immunology 110: 100-115. DOI: 10.1016/j.fsi.2021.01.001 (**D1, Q1**)

6. Callejón-Leblic, B., Selma-Royo, M., Collado, M.C., Abril, N., García-Barrera, T. (**2021**) Impact of Antibiotic-Induced Depletion of Gut Microbiota and Selenium Supplementation on Plasma Selenoproteome and Metal Homeostasis in a Mice Model. Journal of Agricultural and Food Chemistry, 2021, 69(27), pp. 7652–7662. (**D1, Q1**)

7. Ramírez-Acosta, S., Arias-Borrego, A., Navarro-Roldán, F., ...Abril, N., Barrera, T.G. (**2021**) Omic methodologies for assessing metal(-loid)s-host-microbiota interplay: A review. Analytica Chimica Acta, 1176, 338620. (**D1, Q1**)

8. Trombini, C., Kazakova, J., Montilla-López, A., ...Abril, N., Blasco, J. (**2021**) Assessment of pharmaceutical mixture (ibuprofen, ciprofloxacin and flumequine) effects to the crayfish Procambarus clarkii: A multilevel analysis (biochemical, transcriptional and proteomic approaches). Environmental Research, 200, 111396 (**D1, Q1**)

9. Molina, A.M., Abril, N., Lora, A.J., ...Blanco, C., Moyano, M.R. (**2021**) Proteomic profile of the effects of low-dose bisphenol A on zebrafish ovaries. Food and Chemical Toxicology, 2021, 156, 112435 (**D1, Q1**)

10. Arias-Borrego, A., M. Selma-Royo, M. C. Collado, N. Abril and T. Garcia-Barrera (**2022**). Impact of "chemical cocktails" exposure in shaping mice gut microbiota and the role of selenium supplementation combining metallomics, metabolomics, and metataxonomics. Journal of Hazardous Materials 438. (**D1, Q1**)
11. Callejon-Leblic, B., M. Selma-Royo, M. C. Collado, J. L. Gomez-Ariza, N. Abril and T. Garcia-Barrera (**2022**). "Untargeted Gut Metabolomics to Delve the Interplay between Selenium Supplementation and Gut Microbiota." Journal of Proteome Research 21(3): 758-767. (**Q1**)
12. Parra-Martinez, C., M. Selma-Royo, B. Callejon-Leblic, M. C. Collado, N. Abril and T. Garcia-Barrera (**2022**). "Mice brain metabolomics after the exposure to a "chemical cocktail" and selenium supplementation through the gut-brain axis." Journal of Hazardous Materials 438. (**D1, Q1**)
13. Arias-Borrego, A., M. Selma-Royo, M. C. Collado, N. Abril and T. Garcia-Barrera (**2022**). Impact of "chemical cocktails" exposure in shaping mice gut microbiota and the role of selenium supplementation combining metallomics, metabolomics, and metataxonomics. Journal of Hazardous Materials 438. (**D1, Q1**)
14. Rodriguez-Moro, G., C. Roman-Hidalgo, S. Ramirez-Acosta, N. Aranda-Merino, J. L. Gomez-Ariza, N. Abril, M. A. Bello-Lopez, R. Fernandez-Torres and T. Garcia-Barrera (**2022**). "Targeted and untargeted metabolomic analysis of Procambarus clarkii exposed to a "chemical cocktail" of heavy metals and diclofenac." Chemosphere 293. **(D1, Q1**)
15. Arias-Borrego, AM. Selma-Royo, MC Collado, N. Abril and T. Garcia-Barrera (**2022**). Impact of "chemical cocktails" exposure in shaping mice gut microbiota and the role of selenium supplementation combining metallomics, metabolomics, and metataxonomics. Journal of Hazardous Materials 438. (**D1, Q1**)
16. Arias-Borrego, AM. Selma-Royo, MC Collado, F. Navarro-Roldan, N. Abril and T. Garcia-Barrera (**2022**) Selenium supplementation influences mice testicular selenoproteins driven by gut microbiota. Scientific Reports: 4218 **(Q1**)
17. Broggini, C.; N. Abril; J. Carranza; A. Membrillo. (**2022**) Evaluation of candidate reference genes for quantitative real-time PCR normalization in blood from red deer developing antlers. Scientific Reports: 16264 **(Q1)**
18. Huertas-Abril, P. V., Prieto-Alamo, M. J., Jurado, J., Garcia-Barrera, T., Abril, N. : A selenium-enriched diet helps to recover liver function after antibiotic administration in mice. Food and Chemical Toxicology (**2023**) 171. ARTN 113519. DOI: 10.1016/j.fct.2022.113519.
19. Ramírez-Acosta, S.*, Huertas-Abril, P.V.,*, Selma-Royo, M.*, Prieto-Alamo, M. J., Collado, M.C., Abril, N., Garcia-Barrera, T. : The role of selenium in shaping mice brain metabolome and selenoproteome through the gut-brain axis by combining metabolomics, metallomics, gene expression and amplicon sequencing. (*The authors contributed equally to this work and should be considered first authors). Journal of Nutritional Biochemistry (**2023**): Volume 117:109323. DOI: 10.1016/j.jnutbio.2023.109323.

C.2. Research projects (2019-2023)

1. Multi-omics methodologies to study neurotoxicity and reproductive health damage induced by environmental pollutants through the intestinal microbiota (NEUROMICS). Subproject 1: Metallomics and (meta)omics methodologies to study neurotoxicity and reproductive health effects of metals. Impact of gut microbiota and selenium. REF PID2021-123073NB-C21. R & D Knowledge Generation Project. State Program for Knowledge Generation and Scientific and Technological Strengthening of the R&D System. Ministry of Science, Innovation and Universities. Call 2021 (3 years). Principal Investigator: T. García Barrera (University of Huelva) /N. Abril Díaz (University of Córdoba). Duration: January 2022-Dec 2024. Grant amount: 185,500 €. Participation: CO-PRINCIPAL INVESTIGATOR.
2. Omic and metaomic study of the effect of pollutants through the intestinal microbiota-brain axis. From the animal to the cellular model (MAMOMIC). Subproject 1: Identification of molecular and microbiota alterations caused by exposure to chemical cocktails by means of omic and metaomic methodologies. Bioavailability and antagonistic effects of selenium. Ref PGC2018-096608-B-C21. R & D Knowledge Generation Project. State Prog. of Knowledge Generation and Scientific and Technological

Strengthening of the R & D System. Ministry of Science, Innovation and Universities. Call 2018 (3 years). Principal Investigator: T. García Barrera (University of Huelva) /N. Abril Díaz (University of Córdoba). Duration: July 2019- Dec 2021. Grant amount: 223,850 €. Participation: CO-PRINCIPAL RESEARCHER.

C.5. Dirección de tesis doctorales (2016-actualidad)

1. *Biological responses to pollutants in the Doñana environment. Integration of omics methodologies assessing environmental stress in animals of aquatic ecosystems. PhD Candidate: Ricardo Fernández Cisnal. University of Córdoba. September, 2016. Apto "cum laude" unanimously. International mention (3 articles in Q1).*

2. *Biological responses of the brown mouse Mus spretus to contaminants in the Doñana environment. Modulatory effects of selenium and diet. Doctoral candidate: Noelia Morales Prieto. University of Córdoba. March, 2018. Apto "cum laude" unanimously. Thesis with international mention. Thesis by compendium of publications (5 articles in Q1).*

C.6. Congress

- >120 communications to congresses