

CV Date	15/05/2023
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Part A. PERSONAL INFORMATION

First Name	Marta		
Family Name	Sendra Vega		
Sex	Not Specified	Date of Birth	
ID number Social Security, Passport			
URL Web			
Email Address			
Open Researcher and Contributor ID (ORCID)	0000-0001-9317-0217		

A.1. Current position

Job Title	Post doctoral contract Juan de la Cierva-Incorporación		
Starting date	2022		
Institution	Universidad de Burgos		
Department / Centre			
Country	Spain	Phone Number	
Keywords	Cell biology; Ecotoxicology		

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2019 - 2021	Researcher / Post-Doctoral Juan de la Cierva-Formación / Spain
2018 - 2019	post-Doctoral / Institute of Marine Sciences of Andalusia (ICMAN-CSIC) / Spain
2017 - 2018	Doctor Contract / Institute of Marine Science of Andalusia
2014 - 2017	PhD / Institute of Marine Science of Andalusia

A.3. Education

Degree/Master/PhD	University / Country	Year
Management and conservation of the sea	Cádiz University / Spain	2017
Master Degree Biomedicine	Cádiz University	2017
Master Degree Oceanography	Cádiz University	2011
Degree Environmental Science	Granada University	2010
Master in prevention of occupational hazards	School of Legal Studies of Granada	2010
Master in quality and management	School of Legal Studies of Granada	2010

Part B. CV SUMMARY

My research strived for increased knowledge about environmental pollutants and their effects in the aquatic environment as well as on the development and improvement of risk assessment and alternative methods in vitro (3D models) and in vivo (with mutant and transgenic organisms) to classical toxicological test. I developed early warning methodology and new strategies to linking phylogeny and toxicology and incorporate embryotoxicity test and cell line in ecotoxicology strategy. Recently, I am opening a new research line using Danio rerio as a model organism to study compared ecotoxicology, incorporating new omics methodologies and transgenic and mutant organisms to elucidate the Adverse Outcome Pathways of pollutants. During my PhD, I focused on the evaluation of the nanomaterials in freshwater and marine organisms from primary producers, crustacean and bivalves from a bottom-up approach (molecular, cellular, tissular and physiological effects). This bottom-up approach has been acquired by my multidisciplinary education through Oceanography and Biomedicine MSc Degrees. I got the award of "Premio Extraordinario de Doctorado" from Cádiz university.

Following completion of my PhD studies at CSIC, I moved to the University of Algarve (2016) to conduct research on the microplastics effects within a European project. In 2018, I got a Juan de la Cierva Formación Postdoctoral contract (number 1 in my panel). This post-doctoral contract has been developed in the Immunology and Genomics group from IIM-CSIC (Vigo). During this stage, I learnt new immunology and genomic approach which I incorporated in my field research. Currently, I was selected in a Juan de la Cierva Incorporación contract (number 3 in my panel) in the Burgos University.

During my postdoctoral stage, I got funding as principal investigator for two projects from public calls. The first project was a coordinated project with Cádiz and Huelva University and also collaboration with Siena University. Under this project context I was main supervisor of two master students from Cádiz and Siena. In this last project, I have created an agreement with 3 companies from 7 towns to analysed microplastics in wastewater plant. Furthermore, Cádiz University and I have created a OTRI contract with Atacama University (Chile) to analysed microplastic in Atacama coast. Due to the plastic litter issue, I got funding to organize a virtual workshop. Also, my leadership is supported by 15 publications without my PhD supervisors.

In the past seven years, I evolved into an internationally recognized expert in ecotoxicology and this is supported by publications with Yale, Siena, Genova, Algarve, São Paulo, Stanford, the Arturo Prat, Rabat-Morocco, São Carlos, Nacional University, Heredia; Costa Rica and Chott-Mariem; Tunisia. In addition, my stages in Grecia (6 months), Portugal (7 months), USA (4 months), Basque Country (3 months) and Slovenia (4 months) are evolved in my internationalization with a total of 87 co-authors. Due to my international activity, I got two awards classified as the best oral presentation in two international congresses in 2012 and 2019.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper**. Marta; Patricia; Pilar; Beatriz; Antonio. (1/5). 2022. Surgical face masks as a source of emergent pollutants in aquatic systems: Analysis of their degradation product effects in Danio rerio through RNA-Seq. *Journal of Hazardous Materials*. Elsevier. 428-128186. SCOPUS (1)
- 2 **Scientific paper**. Sánchez-Guerrero_hernandez; Gonzalez-Fernandez; Marta; Yeste; Gonzalez-Ortegón. 2023. Contamination from microplastics and other anthropogenic particles in the digestive tracts of the commercial species *Engraulis encrasicolus* and *Sardina pilchardus*. *Science of the Total Environment*. 860-160451.
- 3 **Scientific paper**. Bojana; Antonio; Beatriz; Katerina; Martina; Marta. 2023. Adverse (geno)toxic effects of bisphenol A and its analogues in hepatic 3D cell model. *Environment International*. 171-107721.
- 4 **Scientific paper**. Marta; Pilar; Araceli; Julián; Antonio. 2022. Products released from surgical face masks can provoke cytotoxicity in the marine diatom *Phaeodactylum tricornutum*. *Science of The Total Environment*. ELSEVIER. 841-156611.
- 5 **Scientific paper**. Cristiano V.M.; Marta; Rodolfo Joao; Chiara; Julián. 2022. Are habitable clean areas in heterogeneously contaminated landscapes functioning as escape zones for fish populations to alleviate stress?. *Science of The Total Environment*. ELSEVIER. 818-151713.
- 6 **Scientific paper**. Enrique; Marta; Erica; Ricardo; Isaac; Francisco; Daniel; Pilar. 2022. Coastal gradients of small microplastics and associated pollutants influenced by estuarine sources. *Marine Pollution Bulletin*. 113292-113292. SCOPUS (1)
- 7 **Scientific paper**. Marta Sendra; Patricia Pereiro; Antonio Figueras; Beatriz Novoa. (1/4). 2020. An integrative toxicogenomic analysis of plastic additives. *Journal of Hazardous Materials*. in press. SCOPUS (14)

- 8 **Book chapter.** Manuel; Pilar M.; Marta. 2022. Advanced analytical techniques for physico-chemical characterization of nano-materials. Nano-enabled Agrochemicals in Agriculture. Accademic Press. pp.79-104.
- 9 **Review.** ; Antonella M.; Marta; Daniel C.V. R.; Enrique; Julián; Ignacio; Cristiano V.M.2021. Could contamination avoidance be an endpoint that protects the environment? An overview on how species respond to copper, glyphosate, and silver nanoparticles. Toxics. MDPI. 9(11)-301. SCOPUS (1)
- 10 **Review.** (13/16). 2020. Not only toxic but repellent: What can organisms' responses tell us about contamination and what are the ecological consequences when they flee from an environment?. Toxics. 990505. SCOPUS (11)

C.2. Conferences and meetings

- 1 Miguel; Marta; Enrique. A CRITICAL REVIEW ABOUT RECOVERY MICROPLASTICS METHODS IN DIGESTIVE TRACTS. II International workshop on marine litter and VIII International symposium on marine science (ISMS). ISMS. 2022. Spain. 'Participatory - poster. Conference.
- 2 Miguel; Marta; Enrique. MICROPLASTIC CONTAMINATION IN THE DIGESTIVE TRACTS OF THE COMMERCIAL SPECIES *Engraulis encrasicolus* AND *Sardina pilchardus* FROM THE GULF OF CADIZ. II International workshop on marine litter and VIII International symposium on marine sciences. ISMS. 2022. Spain. Participatory - oral communication. Conference.
- 3 A.M.; Marta; Ignacio; Julián; J.; Carmen. Using a multispecies aquatic mesocosm to assess the impact of pharmaceuticals compounds (anti-inflammatories and antibiotics) on the microbiome. 9th Iberoamerican Congress on Contamination and Environmental Toxicology. CICTA. 2021. Brazil. 'Participatory - poster. Conference.
- 4 Chiara; A.M.; Sendra; Ignacio; J.; C.. Assessing the effect of silver and cadmium and their mixtures using a multispecies system at different trophic levels: multibiomarker approach and environmental microbiome. 9th Iberoamerican Congress on Contamination and Environmental Toxicology. 2021. Brazil. Participatory - oral communication. Conference.
- 5 ; J.; C.; M.; J.R.; C.. Contamination affects the health and spatial distribution of fish in heterogeneously contaminated landscapes. SETAC Latin America. 2021. Participatory - oral communication. Conference.
- 6 M.; M.; E.; J.; I.; C.. Is the Avoidance Behavior to Contamination an Sensitive Endpoint? A Review With Three Model Contaminants: Copper, Glyphosate and Silver Nanoparticles. SETAC. SETAC. 2022. Participatory - oral communication. Conference.
- 7 J; M.. New Approach in Mussel Hemocytes Immunotoxicity Test to Assess Nanomaterials. SETAC 31 st meeting. SETAC. 2021. Participatory - oral communication. Conference.
- 8 M.; P.; P.; B.; A.. Uptake and Cellular Trafficking of PS NPs Through an In Vitro Assay With Zebrafish Embryonic Cell Line (ZF4). SETAC 31st European meeting. 2021. Participatory - oral communication. Conference.

C.3. Research projects and contracts

- 1 **Project.** Fate and Impact of Environmentally ReAlistic nanoplastics and of novel bioplastics in the aquatic environment (FIERA).. Ministerio de Ciencia e Innovación. (UPV/EHU). 01/07/2022-30/06/2026. 200.000 €.
- 2 **Project.** Toxic Free Metallization process for plastic surfaces. Comisión Europea. (españa, Italia, Grecia, Turquía, Israel). 01/06/2022-31/05/2026. 4.834.592 €.
- 3 **Project.** Development and scaled Implementation of sAfe by design tools and Guidelines for multicOmponent aNd hArn nanomaterials. European commision. (Universidad de Burgos). 01/05/2021-01/10/2024. 6.390.223 €.
- 4 **Project.** Advanced 3D cell models: Bridging the gap between in vitro and in vivo experimental systems (Hep3DGenTox). Slovenian Research Agency. (National Institute of Biology). 01/09/2020-31/08/2023.

- 5 **Project.** Broadening the perspective of environmental stress in aquatic ecosystems due to contamination: An approach using the habitat selection response based on a cost-benefits balance. MINISTRY OF SCIENCE, INNOVATION AND UNIVERSITIES. (ICMAN-CSIC). 11/06/2020-11/06/2023. 108.000 €.
- 6 **Project.** El microbioma ambiental: una herramienta para evaluar el impacto de los contaminantes clásicos y emergentes en áreas costeras (PID2019-110049RB-I00). (Consejo Superior de Investigaciones Científicas). 01/06/2020-01/06/2023. 179,26 €.
- 7 **Project.** The impact of COVID -19 in aquatic ecosystems. Effects of personal protective equipment in zebrafish as a model organism for the study. CEI-MAR. (Instituto de Investigaciones Marinas). 12/11/2020-12/11/2021. 2.000 €.
- 8 **Project.** AGL2015- 65705-R, Variability and function of immune genes of the mussel *Mytilus galloprovincialis* AGL2015-65705-R. CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA; Ministry of science and innovation. (IIM-CSIC). 10/09/2019-31/12/2018. 170.000 €. Team member.
- 9 **Contract.** Microplastics Analysis of Atacama coast From 01/09/2020. 3.000 €.
- 10 **Contract.** Convenio con EDARs de Andalucía 01/06/2020-01/06/2021.