

Date of the CVA	14/12/2020
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Section A. PERSONAL DATA

Name and Surname	Marta Sendra Vega		
DNI	45326980-Y	Age	33
Researcher's identification number	Researcher ID		
	Scopus Author ID		
	ORCID	0000-0001-9317-0217	

* Obligatorio

A.1. Current professional situation

Institution	Institute of Marine Research (IIM-CSIC)		
Dpt. / Centre	Immunology and Genomics / Institute of Marine Research (IIM-CSIC)		
Address	C/ Eduardo Cabello 6, 36208, Vigo		
Phone	(+34) 608743860	Email	marta.sendra@icman.csic.es
Professional category	post doctoral Juan de la Cierva-Formación	Start date	2019
Keywords	Cell biology; Ecotoxicology		

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

Bachelor/Master/PhD	University	Year
Management and conservation of the sea	Cádiz University	2017
Degree Environmental Science	Granada University	2010

A.3. General quality indicators of scientific production

Section B. SUMMARY OF THE CURRICULUM

She studied Environmental Science in Granada University and she has studied 4 master degrees, two of them with scientific profile; Biomedicine and Oceanography. She is Dr. in Management and Conservation of the Sea from Cádiz University (2014-2017). She developed her PhD in ICMAN-CSIC with a contract of Junta de Andalucía (JA) for 3 years. She got the award for best PhD Thesis of the year "Premio Extraordinario Doctorado" (2016/2017). She got a Doctor contract for 5 months in ICMAN-CSIC from JA (September 2017-March 2018). She has got two postdoctoral contract. A postdoctoral contract from JA (March 2018-March 2019); and a Juan de la Cierva-Formación contract in (March 2018-currently). She has published 30 scientific papers being the first author on 18 of them. All the publications were published in Q1 journals, with several publications in first decil. She has published 4 chapter book; 2 of them first author and 1 as last author. Her articles have had a great impact on the scientific community. Her H index is 11 with 380 cites and she has collaborated in scientific publications with other institutions from different countries such as Yale University, the University of Siena, the University of Genova, Algarve University, the Federal University of São Paulo; Brazil, the Carnegie Institution for Science; Stanford, USA, the Arturo Prat; Chile and private institutions in USA, Rabat-Morocco, São Carlos; Brazil, Nacional University, Heredia; Costa Rica and Chott-Mariem; Tunisia. Furthermore, regional institutions such as University of La Coruña, Huelva, Córdoba, Girona, Granada, Jaén and Cádiz. She has collaborated with 73 co-authors, and she has published 12 articles without PhD supervisor. She has done national stays and practices in Vigo, Granada and Barcelona; and international stays in Grecia (6 months), Portugal (7 months) and USA (4 months). She has participated in several international and national congresses with 27 participations in total. She has received two mentions for "The Best Oral Presentation" in two different International Congress in 2012 and 2019.

She has been Principal Investigator of two project awarded by the Campus of Excellence of the Sea (CEI-MAR) in 2018 and 2020. Also, she has coordinated a private project during three years (2015-2017). She is competitive to coordinate Project with other institutions such

as the University of Cádiz and the University of Huelva. Regarding to teaching activity, she has directed 3 Final Master Thesis at the University of Siena and the University of Cádiz and University of Vigo. She has taught a postgraduate course "Flow cytometry" for PhD students from University of Cádiz. Furthermore, she has taught classes in the Master Degree in Cádiz University. She has participated in 17 projects and she has established two agreements and contracts with 7 regional companies from Andalusia and Atacama University.

She is currently Co-Chairman for a session of the next SETAC international congress with researcher from Italy, France and Spain. Also, she is organizing a workshop about marine litter, this workshop has been financed by CEI-MAR.

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.** Marta Sendra; Amaro Saco; Magalí Rey-Campos; Beatriz Novoa; Antonio Figueras. 2020. Immune-responsive gene 1 (IRG1) and dimethyl itaconate are involved in the mussel immune response *Fish and Shellfish Immunology* (Q1; D1). Elsevier. 106, pp.645-655.
- 2 Scientific paper.** (AC); María Isabel Carrasco-Braganza; Pilar Yeste; Julián Blasco; Marta Vila. (1/5). 2020. Immunotoxicity of polystyrene nanoplastics in different hemocyte subpopulations of *Mytilus galloprovincialis* *Scientific Reports*(Q1). *Nature*. 10(1), pp.1-14.
- 3 Scientific paper.** Fatma Aouni; Chiara Trombini; Marta Sendra; Julian Blasco. (3/4). 2019. Biochemical response of the clam *Ruditapes philippinarum* to silver (AgD and AgNPs) exposure and application of an integrated biomarker response approach *Marine Environmental Research*. Q1. 152.
- 4 Scientific paper.** Marta Sendra; Antonio Figueras; Beatriz Novoa; Alejandro Romero; Pilar Yeste; Amaro Saco. (1/6). 2019. Nanoplastics: From tissue accumulation to cell translocation into *Mytilus galloprovincialis* hemocytes. resilience of immune cells exposed to nanoplastics and nanoplastics plus *Vibrio splendidus* combination *Journal of Hazardous Materials*. Q1 (D1). 121788.
- 5 Scientific paper.** (AC); Erica Sparaventi; Julián Blasco; Ignacio Moreno-Garrido; Cristiano Araujo. (1/5). 2019. Ingestion and bioaccumulation of polystyrene nanoplastics and their effects on the microalgal feeding of *Artemia franciscana* *Ecotoxicology and environmental safety*. Q1. 188.
- 6 Scientific paper.** (AC); Julián Blasco; Ilaria Corsi; José Manuel Gatica; Ignacio Moreno-Garrido; Pilar Yeste; Eleonora Stafieri. (1/6). 2019. Are the primary characteristics of polystyrene nanoplastics responsible for toxicity and ad/absorption in the marine diatom *Phaeodactylum tricornutum*? *Environmental Pollution*. Q1 (D1). 249.
- 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.
- 8 Scientific paper.** Marta Sendra; Erica Sparaventi; Beatriz Novoa; Antonio Figueras. 2020. An overview of the internalization and effects of microplastics and nanoplastics as pollutants of emerging concern in bivalves *Science of The Total Environment* (Q1). Elsevier. 753.
- 9 Scientific paper.** Samuel Dominguez; Antonio José García-Sánchez; Marta Sendra; et al;. 2020. Effects of classical PKC activation on hippocampal neurogenesis and cognitive performance: mechanism of action *Neuropsychopharmacology* (Q1). in press.
- 10 Scientific paper.** Marta Sendra; Patricia Pereiro; Pilar Yeste; Antonio Figueras; Beatriz Novoa. 2020. Size matters: Zebrafish (*Danio rerio*) as a model to study toxicity of nanoplastics from cells to the whole organism *Environmental Pollution* (Q1; D1). Elsevier. 268-115769.
- 11 Scientific paper.** Chiara Gambardella; Ricardo Beiras; Marta Sendra; et al;. 2019. Microplastics do not affect standard ecotoxicological endpoints in marine unicellular organisms *Marine Pollution Bulletin*. Q1. 143.

- 12 **Scientific paper.** Manon Auguste; Laura Canesi; Julián Blasco; Marta Sendra; Rita Fabbri; M. Montagna; Teresa Balbi. 2019. In vivo immunomodulatory and antioxidant properties of nanoceria (nCeO₂) in the marine mussel *Mytilus galloprovincialis* Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology. Q2. 219.
- 13 **Scientific paper.** Marta Sendra; Alejandro Damián-Serrano; Cristiano VN Araujo; Ignacio Moreno-Garrido; Julián Blasco. 2018. Erythromycin sensitivity across different taxa of marine phytoplankton. A novel approach to sensitivity of microalgae and the evolutionary history of the 23S gene *Aquatic toxicology*. Q1. Elsevier. 204, pp.190-196.
- 14 **Scientific paper.** 1 (AC). (1/). 2018. Effect of erythromycin and modulating effect of CeO₂ NPs on the toxicity exerted by the antibiotic on the microalgae *Chlamydomonas reinhardtii* and *Phaeodactylum tricornutum* *Environmental pollution* Q1.
- 15 **Scientific paper.** Esther Bautista-Chamizo; Marta Sendra; Manoela de Orte; Inmaculada Riba. (2/). 2018. Comparative effects of seawater acidification on microalgae: single and multispecies toxicity tests. *Science of the Total Environment*. Q1. Elsevier.
- 16 **Scientific paper.** 1 (AC). (1/). 2018. Cytotoxicity of CeO₂ nanoparticles using in vitro assay with *Mytilus galloprovincialis* hemocytes: relevance of zeta potential, shape and biocorona formation *Aquatic Toxicology* Q1. 200-200, pp.13-20.
- 17 **Scientific paper.** Esther Bautista-Chamizo; Marta Sendra; Marta Seoane; Ángeles Cid; Manoela de Orte; Inmaculada Riba. (1/). 2018. Will temperature and salinity changes exacerbate the effects of seawater acidification on the marine microalga *Phaeodactylum tricornutum*? *Science of the Total Environment*. Q1. Elsevier. 634, pp.87-94.
- 18 **Scientific paper.** (AC); Marina G. Pintado Herrera; Gabriela V. Aguirre Martínez; Ignacio Moreno Garrido; Laura M. Martín Díaz; Pablo M. Lara Martín; ; Julián Blasco Moreno. (1/). 2017. Are the TiO₂ NPs a “Trojan horse” for personal care products (PCPs) in the clam *Ruditapes philippinarum*? *Chemosphere*. Q1. Elsevier. 185, pp.192-204.
- 19 **Scientific paper.** (AC); Julián Blasco Moreno; Cristiano Araújo. (1/). 2017. Is the cell wall of marine phytoplankton a protective barrier or a nanoparticle interaction site? Toxicological responses of *Chlorella autotrophica* and *Dunaliella salina* to Ag and CeO₂ nanoparticles. *Ecological Indicators* Q1. Elsevier. versión Online.
- 20 **Scientific paper.** (AC); Pilar M. Yeste Sigüenza; José Manuel Gatica Casas; Ignacio Moreno Garrido; Julián Blasco Moreno. (1/). 2017. Homoagglomeration and heteroagglomeration of TiO₂, in nanoparticle and bulk form, onto freshwater and marine microalgae. *Science of The Total Environment*. Q1. Elsevier. 592, pp.403-411.
- 21 **Scientific paper.** (AC); Ignacio Moreno Garrido; Pilar M. Yeste Igüenza; José Manuel Gatica Casas; Julián Blasco Moreno. (1/). 2017. Toxicity of TiO₂, in nanoparticle or bulk form to freshwater and marine microalgae under visible light and UV-A radiation. *Environmental Pollution* Q1. Elsevier. 227, pp.39-48-48.
- 22 **Scientific paper.** (AC); Pilar M. Yeste Sigüenza; Ignacio Moreno Garrido; José Manuel Gatica Casas; Julián Blasco Moreno. (1/). 2017. CeO₂ NPs, toxic or protective to phytoplankton? Charge of nanoparticles and cell wall as factors which cause changes in cell complexity. *Science of the total environment*. Q1. Elsevier. 590, pp.304-315.
- 23 **Scientific paper.** (AC); Pilar M. Yeste Sigüenza; José Manuel Gatica Casas; Ignacio Moreno Garrido; Julián Blasco Moreno. (1/). 2017. Direct and indirect effects of silver nanoparticles on freshwater and marine microalgae (*Chlamydomonas reinhardtii* and *Phaeodactylum tricornutum*). *Chemosphere* Q1. Elsevier. 179, pp.279-289.
- 24 **Scientific paper.** (AC); David Sánchez Quiles; Julián Blasco Moreno; Ignacio Moreno Garrido; Luis M. Lubián Chaichio; Sara Pérez García; Antonio Tovar Sánchez. (1/). 2017. Effects of TiO₂ nanoparticles and sunscreens on coastal marine microalgae: Ultraviolet radiation is key variable for toxicity assessment. *Environment International*. Q1. Elsevier. 98, pp.62-68.
- 25 **Scientific paper.** Macarena Burgos; Marta Sendra Vega; Teodora Ortega; Rocío Ponce; Abelardo Gómez Parra; Jesús M. Forja. (2/). 2015. Ocean-Atmosphere CO₂ Fluxes in the North Atlantic Subtropical Gyre: Association with Biochemical and Physical Factors during Spring *Journal of Marine Science and Engineering*. Q2. MDPI. 3, pp.891-905.

- 26 Scientific paper.** Hankiu Kim; Marta Sendra Vega; Marian Wahl; Chong Leong Puan; Laurie Goodrich; Keith L. Bildstein. (2/). 2015. Relationship between the North Atlantic Oscillation and Spring migration phenology of Broad-winged hawks (*buteo platypterus*) at Hawk Mountain Sanctuary, 1998-2013. *Journal of Raptor Research*. Q2. Raptor Research Foundation, Inc.. 49, pp.471-478.
- 27 Book chapter.** Ignacio Moreno-Garrido; Marta Sendra. 2020. Pharmaceuticals and aquatic benthic organisms: toxicity and accumulation *Pharmaceuticals in Marine and Coastal Environments: Occurrence, effects and challenges in a changing world*. In press.
- 28 Book chapter.** Cristiano Araujo; Marta Sendra; Chiara Trombini; Julián Blasco. 2020. Environmental risk assessment of sunscreens *Sunscreens in coastal ecosystems: Occurrence, behaviour, effects and risks*. Springer. In press.
- 29 Book chapter.** (AC); Julián Blasco; Ignacio Moreno-Garrido. (1/3). 2019. Toxicity of metal and metal oxide engineered nanoparticles to phytoplankton *Ecotoxicology of nanoparticles in aquatic systems*. Taylor & Francis group.
- 30 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.
- 31 Review.** Antonio Figueras; Beatriz Novoa; Marta Sendra; Rebeca Moreira. 2019. Genomics and immunity of the Mediterranean mussel *Mytilus galloprovincialis* in a changing environment *Fish & shellfish immunology*. Q1 (D1).90.

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

- 1 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 €.
- 2 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 €.
- 3 Proyecto BLUEBIOLAB (0474_BLUEBIOLAB_1_E): Creación del Laboratorio Transfronterizo de Biotecnología Marina *European Union*. (Universidade de Vigo). 01/01/2018-31/12/2021. 1.122.152 €.
- 4 The impact of COVID -19 in aquatic ecosystems. Effects of personal protective equipment in zebrafish as a model organism for the study *CEI·MAR*. Marta Sendra Vega. (Instituto de Investigaciones Marinas). 12/11/2020-12/11/2021. 2.000 €.
- 5 RTI2018-095997-B-I00, Genomics and immunity in mussels *Mytilus galloprovincialis* (AEI/EU-FEDER RTI2018-095997-B-100) *Ministry of Science, Innovation and Universities*. Antonio Figueras Huerta. (IIM-CSIC). 11/06/2018-11/06/2021. 125.875 €. Team member.
- 6 CEIJ-C06.1, Behaviour, bioavailability and toxicity of PS nanoPlastic in immune system of marine bivalve; *Mytilus galloprovincialis* (B3nanoPlastic). *CEI·MAR*. *CEI·MAR*. Marta Sendra Vega. (Instituto de Ciencias Marinas de Andalucía). 27/07/2018-26/07/2019. 12.000 €. Principal investigator.
- 7 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*. Antonio Figueras Huerta. (IIM-CSIC). 10/09/2019-31/12/2018. 170.000 €. Team member.

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

C.4. Patents