



### CURRICULUM VITAE (CVA)

**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

#### Part A. PERSONAL INFORMATION

CV date	27-01-2023
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First name	Marina		
Family name	Albentosa		
Gender (*)	Mujer	Birth date (dd/mm/yyyy)	07/07/1963
Social Security, Passport, ID number	21456371Q		
e-mail	marina.albentosa@ieo.csic.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-4771-5137	

(\*) Mandatory

#### A.1. Current position

Position	Profesora de Investigación de OPI		
Initial date	16-02-2021 (desde 1991 investigadora del IEO)		
Institution	Instituto Español de Oceanografía		
Department/Center	Centro Oceanográfico de Murcia		
Country	España	Teleph. number	677089224
Key words	Bivalves nutrition & physiology, marine pollution, biomarkers, bioassays, ecotoxicology, restoration, biorremediation, bioextraction		

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

Period	Position/Institution/Country/Interruption cause
2018-2020, 2011-2018, 2002-2011, 1991-2002	Investigador Científico de OPI, Científico Titular de OPI, Investigador Titular de OPI, Tec. Fac. de OOAA del MAPA

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Biology	University of Santiago de Compostela	1995
BA Degree Biology	University of Granada	1987

#### Part B. CV SUMMARY (max. 5000 characters, including spaces)

In the Scopus database there are 53 publications that have been cited 1872 times. The average number of citations per article is 27.5. Total citations have doubled in the last two years until 266 citations registered in 2022. Index h of 27 in Scopus and 31 in Research Gate. Q1 publications 70%, 9 of which are D1 (32%), Q2 publications 10%, Q3 publications 7.5% and Q4 publications, 12.5%. Of the total number of publications, it appears in a relevant position (first, last or corresponding author) in 60% of the cases. Average number of authors per publication: 4.9. MA has been granted 5 six-year-research periods (sexenios) for 30 uninterrupted years from 1990 to 2019. She has directed one doctoral thesis and 11 master thesis.



MA has 30 years of experience in studies of marine bivalves, both from the perspective of their aquaculture and from their use in environmental research. He has extensive experience in bivalve culture techniques from broodstock, larval culture and seeds, as well as in the assessment of physiological rates that integrate the energy balance in order to estimate their energy potential or SFG. She has also conducted research on the nutritional requirements of different species of bivalves, mainly during the growing stages with special emphasis on the requirements of essential fatty acids for growth. Nutrition work has been of great help in the development of alternative diets to live microalgae as food, diets based on microalgae supplied inertly. She has also studied the digestive biochemistry of bivalves. The joint use of physiological and biochemical parameters led to a breakthrough in the study of bivalve nutrition, which served to improve the culture conditions of different commercial bivalve species.

The knowledge of the functioning of the biological processes in bivalves, necessary to improve the production of bivalves in the culture facilities, together with the experience acquired in their handling under controlled laboratory conditions, has allowed her to develop new lines in Ecotoxicology and in Monitoring of Marine Pollution. In both cases, Aquaculture and Environment, her work has focused on studying the response of organisms to changes in the environment, either with the aim of improving a productive system, or to analyze pollution. Currently, she is responsible for the Laboratory of Physiology and Toxicology of Bivalves of the Oceanographic Center of Murcia (IEO), included in the Marine Pollution group of the IEO. In the framework of pollution research, she has studied the effects on the energy physiology of bivalves caused by the oil spill caused by the Prestige. Other specific episodes of marine pollution, such as the discharge of forest ash to the Galician Rias, have also been studied in the framework of national R + D + i projects. Other projects, led by MA, have focused on the assessment of new biomarkers of contamination such as digestive enzymes. She was also the leader of the BIOCUM project about confounding factors in biomonitoring programs. Since 2007, MA participates in the Monitoring Programs of Marine Pollution of the IEO in the framework of the Management Orders that the Environment Secretariat makes to the IEO in order to comply with the European regulations on Marine Strategies. From 2015-19, she led the EPHEMARE-IEO project as part of a European project organized by the JPI Oceans: *Ecological aspects of microplastics in the marine environment*. IEO (MA) was responsible for coordinating the WP4 on the mechanisms of action of microplastics at the molecular, cellular, biochemical, histological, immunological and physiological levels. Actually, she is a member of the research team of the MicroplastiX project funded by the second call on microplastics from the JPIOceans (2019) and of the CDTI project ñ-COSTAS regarding the use of recycled plastics from the sea in manufacturing aquaculture products. She is also a researcher of the PharmaSea project focused in the effects of pharmaceuticals in marine organisms. She is also involved in the LIFE project INTEMARES through the *Pinna nobilis* action. Since 2019 she is in charge of the Mar Menor Oyster Initiative (MMOI) driven by 10 scientists and supported by NORA. Recently, MA has got funds by the Biodiversity Foundation for the MMOI through the RemediOS project (PLEAMAR Programme, 2022) with the objectives of producing oyster seed from Mar Menor broodstock and of disseminating oyster restoration concept to administrations, fishermen and society, and the RESALAR project (Bioeconomy call) for the restoration of salt-ponds from the Mar Menor. MA is a member of the Steering Board of NORA, the European network for the recovery of the flat oyster populations

## **Part C. RELEVANT MERITS** (sorted by typology)

### **C.1. Publications** (see instructions)

**Albentosa, M.\***, Akinyemi, M.I., Vera, M., Ibarrola, I., Filgueira, R., Galimany, E., da Costa, F., Pardo, B.G., Vázquez-Luis, M., Hernández, A., Hernandis, S., Martínez, P. 2023. Recovery of eutrophized marine ecosystems using the European flat oyster, *Ostrea edulis*. *Aquatic Conservation* (in press).

Lunetta, A., **Albentosa, M.**, Nebot-Colomer, E., Pardo, B., Martínez, P., Villalba, A., Donato, G., Akinyemi, M.I., Vázquez-Luis, M. 2022. Assessment of *Ostrea stentina* recruitment and



- performance in the Mar Menor lagoon (SE Spain). *Regional Studies in Marine Science*. <https://doi.org/10.1016/j.rsma.2022.102760>.
- Hernandis, S., Ibarrola, I., Tena-Medialdea, J., Vázquez-Luis, M., García-March, J.R., Prado, P., **Albentosa, M.** 2022. Scope for growth and dietary needs of Mediterranean Pinnids maintained in captivity. *BMC Zoology*, 7:43. <https://doi.org/10.1186/s40850-022-00141-w>
- Fernández, B., Campillo, J.A., Chaves-Pozo, E., Bellas, J., León, V.M., **Albentosa, M.\*** 2022. Comparative role of microplastics and microalgae as vectors for chlorpyrifos bioaccumulation and related physiological and immune effects in mussels. *Science of the Total Environment* 807, 150983. <https://doi.org/10.1016/j.scitotenv.2021.150983>.
- Fernández, B., Santos-Echeandía, J., Rivera-Hernández, J.R., Garrido, S., **Albentosa, M.** 2020. Mercury interactions with algal and plastic microparticles: Comparative role as vectors of metals for the mussel, *Mytilus galloprovincialis*. *Journal of Hazardous Materials*, 396: 122739. <https://doi.org/10.1016/j.jhazmat.2020.122739>.
- Fernández, B., **Albentosa, M.** 2019. Dynamic of small polyethylene microplastics ( $\leq 10 \mu\text{m}$ ) in mussel's tissues. *Marine Pollution Bulletin*, 146: 493-501. <https://doi.org/10.1016/j.marpolbul.2019.06.021>
- Gambardella, C., Piazza, V., **Albentosa, M.**, Bebianno, M.J., Cardoso, C., Faimali, M., Garaventa, F., Garrido, S., González, S., Pérez, S., Sendra, M., Beiras. 2019. Microplastics do not affect standard ecotoxicological endpoints in marine unicellular organisms. *Marine Pollution Bulletin*, 143: 140-143. <https://doi.org/10.1016/j.marpolbul.2019.04.055>.
- Rivera-Hernández, J.R., Fernández, B., Santos-Echeandía, J., Garrido, S., Morante, M., Santos, P., **Albentosa, M.\*** 2019. Biodynamics of mercury in mussel tissues as a function of exposure pathway: natural vs microplastic routes. *Science of the Total Environment*, 674: 412-423. <https://doi.org/10.1016/j.scitotenv.2019.04.175>.
- Fernández, B., **Albentosa, M.** 2019. Insights into the uptake, elimination and accumulation of microplastics in mussel. *Environmental Pollution*, 249: 321-329. <https://doi.org/10.1016/j.envpol.2019.03.037>
- Garrido, S., Linares, M., Campillo, J.A., **Albentosa, M.\*** 2019. Effect of microplastics on the toxicity of chlorpyrifos to the microalgae *Isochrysis galbana*, clone t-ISO. *Ecotoxicology and Environmental Safety*, 173: 103-109. <https://doi.org/10.1016/j.ecoenv.2019.02.020>
- Campillo, J.A., Sevilla, A., González-Fernández, C., Bellas, J., Bernal, C., Cánovas, M. **Albentosa, M.\*** 2019. Metabolomic responses of mussel *Mytilus galloprovincialis* to fluoranthene exposure under different nutritive conditions. *Marine Environmental Research*, 144: 194-202. <https://doi.org/10.1016/j.marenvres.2019.01.012>.
- González-Fernández, C., **Albentosa, M.**, Sokolova, I. 2017. Interactive effects of nutrition, reproductive state and pollution on molecular stress responses of mussels, *Mytilus galloprovincialis*, Lamarck, 1819. *Marine Environmental Research*, 131: 103-115. <https://doi.org/10.1016/j.marenvres.2017.08.011>.
- Albentosa, M\*.,** Viñas, L., Besada, V., Franco, A., González-Quijano, A. 2012. First measurements of the scope for growth (SFG) in mussels from a large scale survey in the North-Atlantic Spanish coast. *Science of the Total Environment* 435-436:430-445. <https://doi.org/10.1016/j.scitotenv.2012.07.025>.



### **C.3. Research projects**

As Researcher Leader:

2022-2025. RESALAR Project. Regeneración de salinas y arenales en el Mar Menor. Financiación IEO: 192.660 €. Convocatoria Bioeconomía de la Fundación Biodiversidad.

2022. Prueba de concepto para la utilización de la ostra plana en acciones de biorremediación: producción de semilla con reproductores autóctonos (el Mar Menor como caso de estudio (RemediOS). Funded by Fundación Biodiversidad (Programa PLEAMAR), Financiación: 229.363 €. IP: M. Albentosa.

PCIN2015-187-CO3-01 (2015-2019). Efectos ecotoxicológicos de microplásticos en ecosistemas marinos: Estudios con mejillón (*Mytilus galloprovincialis*). Funded by Acciones de Programación Conjunta Internacional del Plan Estatal de I+D+i 2013-2016. Project funded by the JPI-Oceans call on microplastics (2105). Spanish institutions: IEO, Universidad de Vigo y de Murcia. 8 countries and 11 institutions. IP (IEO): M. Albentosa.

CTM2012-30737 (2013-2015). Factores de Confusión en la Biomonitorización de la Contaminación Marina (BIOCOM). Funded by the Spanish Plan Nacional de I+D+I 2008-2011. Entidades: IEO, Universidad de Murcia. IP: M. Albentosa.

As Researcher :

PHARMASEA (2021, PCI2021-121933). Presence, behavior and risk assessment of pharmaceuticals in marine ecosystems. Project funded by the Water-JPI call on Aquatic Pollutants.

MicroplastiX (2020, PCI2020-112145). Integrated approach on the fate of MicroPlastics (MPs) towards healthy marine ecosystems. Project funded by the second call on Microplastics from the JPI-Oceans.

Ñ-COSTAS (2020, CIEN, CDTI). Acuicultura sostenible. Desarrollo de productos plásticos reciclables y sostenibles a partir de material plástico recuperado en el medio marino.

MOLEQUI (2019, EQC2018-004734-P). Laboratorio de Biología Molecular y Celular de la Unidad de Patología Marina. Infraestructuras FEDER.

RED EnviroPlanet (RED2018-102345-T). Red temática de micro y nanoplasticos en el medio ambiente. Partners: U. Alcalá, U.Vigo, CAB (INTA-CSIC), IEO, IMDEA, INIA, U.Autónoma Madrid, U. La Laguna, U. Las Palmas de GC., U. Málaga, UNED, UPCT, UdC.

### **C.4. Contracts, technological or transfer merits**

Contract: Encomienda de Gestión. Empresa/Administración financiadora: Ministerio de Medio Ambiente. Entidades participantes: IEO. Duración: 2010- 2012. Principal Researcher: Juan José González. Nº de investigadores participantes: 14.

Contract: Encargo de Gestión. Empresa/Administración financiadora: Ministerio de Medio Ambiente. Entidades participantes: IEO. Duración: 2013-2015. Principal Researcher: Demetrio de Armas. Nº de investigadores participantes: 14.

Contract: Asesoramiento científico técnico para la protección del medio marino: Evaluación y seguimiento de las estrategias marinas, seguimiento de los espacios marinos protegidos de competencia estatal (2017-2021) (REF: 28-5307). Dirección General de Sostenibilidad de la Costa y del Mar, Ministerio para la Transición Ecológica. From 2018 to 2021. Principal Investigator: Rafael González-Quirós.