



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	14/01/2022
First name	MANUEL		
Family name	SOTO		
Gender (*)	MALE	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail	manu.soto@ehu.eus	URL Web: www.ehu.eus/pie	
Open Research and Contributor ID (ORCID)(*)	orcid.org/0000-0002-4541-8182		

(*) Mandatory

A.1. Current position

Position	FULL PROFESSOR IN CELL BIOLOGY DEPUTY DIRECTOR PLENTZIA MARINE STATION		
Initial date	18/10/2011 20/12/2012		
Institution	UNIVERSITY OF THE BASQUE COUNTRY		
Department/Center	ZOOLOGY AND ANIMAL CELL BIOLOGY		
Country	SPAIN	Teleph. number	94-6015512
Key words	Metals, Nanoparticles, biological effects, biological complexity, molecular-cell-tissue levels, biomarkers, ecotoxicology		

A.2. Previous positions (research activity interruptions, art. 45.2.c)

Period	Position/Institution/Country/Interruption cause
XXXX-XXXX	
YYYY-YYYYY	

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licenciature in Biology	UNIVERSITY OF THE BASQUE COUNTRY	1988
PhD International	UNIVERSITY OF THE BASQUE COUNTRY	1995

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

Manuel SOTO (male) Professor of Cell Biology (UPV/ EHU, 2011). Deputy Director of Research Centre for Experimental Marine Biology and Biotechnology (Plentzia Marine Station) in the University of the Basque Country (2012-). Researcher in the Consolidated Research Group *Cell Biology in Environmental Toxicology (CBET)*. The CBET group develops since 1983 research and teaching activities within environmental toxicology. Pre and postdoctoral research studies in: Univ of Wales (Aberystwyth), Univ Innsbruck (Austria), Univ

Azores (Portugal) and University of Wales (Cardiff). He has supervised 7 PhDs and 3 in progress. Interests on the development and application of biomarkers of effect against exposure to metals in aquatic and terrestrial organisms (earthworms, molluscs, polychaetes, fishes), cellular localization and quantification of metal ions, molecular probes in target cellular compartments, and the transit of metals (aqueous forms, massive forms and nanoparticles), plastics and other contaminants. >100 papers and book chapters (>85% in Q1; H= Index= 30), and >200 contributions at national and international conferences (regular presentations and invited talks). PI of research projects funded by the Spanish Ministry of Education, Economy, Competitivity, University of the Basque Country, Basque Government (Saiotek & Eortek Programs), and contracts with municipalities, state and local environmental agencies and private companies (foreign and local). He has participated for the past 15 years of uninterrupted way in European research projects VI, VII FP and H2020. Serves as evaluator Evaluation Agencies Research Projects Spanish, Portuguese, UK and Argentina, Founding Member of the Latin American Society of Environmental Contamination and Toxicology (SICTA), and member of the board since 2003 and editor of the journal and SICTA website. Usual referee for more than 30 Scientific Journal. Previous activities: Vicedean of the Faculty of Science and Technology (2007-2012), Coordinator of the Master International Marine Environment and Resources (2012-), Member of the Committee of the Commission of Ethics for Animal Welfare (2009-2012), Member of the Committee on Undergraduate Studies of Biology (2010-2013). Deputy Director Plentzia Marine Station (University of the Basque Country) (2012-).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions) 20192021

- 94.- IMENO-ROMERO A, BILBAO E, VALSAMI-JONES E, CAJARAVILLE MP, SOTO M, MARIGÓMEZ I. 2019. Bioaccumulation, tissue and cell distribution, biomarkers and toxicopathic effects of CdS quantum dots in mussels, *Mytilus galloprovincialis*. *ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY*. 167: 288-300.
- 95.- BLANCO-RAYÓN E, SOTO M, IZAGIRRE U, MARIGÓMEZ I. 2019. Enhanced discrimination of basophilic cells on mussel digestive gland tissue sections by means of toluidine-eosin staining. *J INVERT PATHOL*. 161: 29-39.
- 96.- JIMENO-ROMERO A, KOHL Y, MARIGÓMEZ I, SOTO M. 2019. Nanoparticles Under The Spotlight: Intracellular Fate And Toxic Effects. Chapter 7 (20 pp), In: *Cells Of Aquatic Organisms As Revealed By Microscopy*. Eds. Ilaria Corsi, Julian Blasco. Elsevier. CRC Press, eBook ISBN 9781315158761.
- 97.- GARCIA-VELASCO N, IRIZAR A, URIONABARRENETXEA E; SCOTT-FORDSMAND JJ, SOTO M. 2019. Selection of an optimal culture medium and the most responsive viability assay to assess AgNPs toxicity with primary cultures of *Eisenia fetida* coelomocytes. *ECOTOX ENVIRONMENTAL SAFETY*. 183: 109545.
- 98.- BENITO D, AHVO A, NUUTINEN J, BILBAO D, SAENZ J, ETXEBARRIA N, LEKUBE X, IZAGIRRE U, LEHTONEN K, MARIGOMEZ I, ZALDIBAR B, SOTO M. 2019. Influence of season-depending ecological variables on biomarker baseline levels in mussels (*Mytilus trossulus*) from two Baltic Sea subregions. *SCIENCE OF THE TOTAL ENVIRONMENT* 689:1087–1103.
- 99.- FERNANDEZ-WAID P, DIEZ G, BIDAGUREN I, IZAGIRRE U, BLANCO JM, SOTO M. 2019. Morphological Characterization and Hydrodynamic Behavior of Shortfin Mako Shark (*Isurus oxyrinchus*) Dorsal Fin Denticles. *JOURNAL OF BIONIC ENGINEERING*. 16: 730–741.
- 100.- EGIRAUN H, GIL-URIARTE, E, BARRENETXEA L., LIZUNDIA E, ZUAZO I, SOTO M. 2019. Comparative study of mussel shells using 3D scanning. Lecture Notes in mechanical Engineering. 497-504. ISSN: 21954356. DOI: 10.1007/978-3-030-12346-8_48. Book Chapter.
- 101.- APARICIO JD, GARCIA-VELASCO N, URIONABARRENETXEA E, SOTO M, ÁLVAREZ A, POLTI MA. 2019. Evaluation of the effectiveness of a bioremediation process in experimental soils polluted with chromium and lindane. *ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY*. 181: 255-263.
- 102.- GARMENDIA M, FDEZ-ORTIZ DE VALLEJUELO S, GREDILLA A, LIÑERO O, ARANA G, SOTO M, DE DIEGO A. 2019. Long term monitoring of metal pollution in sediments as a tool to investigate the effects of engineering works in estuaries. A case study, the Nerbioi-Ibaizabal estuary. *MAR POLL BULL*. 145:555-563.
- 103.- JØRGENSEN KS, KREUTZER A, LEHTONEN KK, KANKAANPÄÄ H, RYTKÖNEN J, WEGEBERG S, GUSTAVSON K, FRITT-RASMUSSEN J, TRUU J, KÖUTS T, LILOVER M-J; THOMAS-BENJAMIN SEILER T-B, HOLLERT H, JOHANN S, MARIGÓMEZ I, SOTO M, LEKUBE X, JENSSEN BM, CIESIELSKI

- T, WILMS LB, HÖGSTRÖM R, PIRNESKOSKI M, VIRTANEN S, FORSMAN B, PETRICH C, PHUONG-DANG N, WANG F. 2019. The EU Horizon 2020 project GRACE – Integrated oil spill response actions and environmental effects. ENVIRONMENTAL SCIENCES EUROPE, 31: 44.
- 104.- ABDOU M, ZALDIBAR B, MEDRANO R, SCHÄFER J, IZAGIRRE U, DUTRUCH L, COYNEL A, BLANC G, SOTO M. 2020. Organotropism and biomarker response in oyster *Crassostrea gigas* exposed to platinum in seawater. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.3443-7.
- 105.- URIONABARRENETXEA E, GARCIA-VELASCO N, MARIGÓMEZ I, SOTO M. 2020. Effects of elevated temperatures and cadmium exposure on stress biomarkers at different biological complexity levels in *Eisenia fetida* earthworms. COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART C. 231: 108735.
- 106.- LACALLE RG, APARICIO JD, ARTETXE U, URIONABARRENETXEA E, POLTI MA, SOTO M, GARBISU C, BECERRIL JM. 2020. Gentle Remediation Options for a soil with chromium (VI) and lindane mixed contamination: Biostimulation, bioaugmentation, phytoremediation and vermiremediation. HELYION. 6
- 107.- URIONABARRENETXEA E, GARCIA-VELASCO N, ANZA M, ARTETXE U, LACALLE R, GARBISU C, BECERRIL JM, SOTO M. 2021. Application of in situ bioremediation strategies in soils amended with sewage sludges. SCIENCE OF THE TOTAL ENVIRONMENT 766 (2021) 144099.
- 108.- APARICIO JD, LACALLE RG, ARTETXE U, URIONABARRENETXEA E, BECERRIL JM, POLTI MA, GARBISU C, SOTO M. 2021. Successful remediation of soils with mixed contamination of chromium and lindane: Integration of biological and physico-chemical strategies. ENVIRON RES 194 (2021) 110666.
- 109.- CABALLERO-HUERTAS M, SOTO M, RIBAS L. 2021. Reviewing *Pseudoloma neurophilia* infections in the popular zebrafish model. Reviews in Aquaculture, 1–12. doi: 10.1111/raq.12545.
- 110.- JIMENO-ROMERO A, GWINNER F, HESLER M, MARIUSSEN E, SOTO M, KOHL Y. 2021. Sea bass primary cultures versus RTgill-W1 Cell Line: Influence of cell model on the sensitivity to nanoparticles. NANOMAT. 11, 3136.
- 111.- BENITO D, PALEČEK D, LEKUBE X, IZAGIRRE U, MARIGÓMEZ I, ZALDIBAR B, SOTO M. Variability and distribution of parasites, pathologies and their effect on wild mussel (*Mytilus* sp) populations in different environments along a wide latitudinal span in the Northern Atlantic and Arctic Oceans. MERE, in press.
- 112.- URIONABARRENETXEA E, CASÁS C, GARCIA-VELASCO N, SANTOS M, TARAZONA JV, SOTO M. Predicting environmental concentrations and the potential risk of Plant Protection Products (PPP) on non-target soil organisms accounting for regional and landscape ecological variability in European soils. STOTEN, in press.
- 113.- URIONABARRENETXEA E, GARCIA-VELASCO N, ZALDIBAR B, SOTO M. Impacts of sewage sludges deposition on agricultural soils: effects upon model soil organisms. COMP BIOCHEM PHYSIOL,press.

C.2. Congress (2020-2021)

SETAC Europe 30th Annual Meeting. Open science for enhanced global environmental protection. 3-7 MAY 2020 (Dublin, online meeting).

242.- URIONABARRENETXEA E, GARCÍA-VELASCO N; IRUSKIETA U; ZUMARRAGA C; ANZA M; GARBISU C; ARTETXE U; LACALLE R; BECERRIL JM; SOTO M. Application of *in situ* biorremediation strategies in soils amended with sewage sludges. ORAL.

243.- GARCIA-VELASCO N, URIONABARRENETXEA E., DONI L., PEREA O., ZALDIBAR B., IZAGIRRE U., SOTO M. *In vivo* and *in vitro* bioassays with *Hediste diversicolor* polychaete to assess the toxicity of polluted sediments. PANEL.

244.- GARCIA-VELASCO N., DE MIGUEL L. CARRERO J.A, URIONABARRENETXEA E., GREDILLA A, DE DIEGO A., IZAGIRRE U., SOTO M. Toxicity screening of sediments collected in three different estuaries of Bay of Biscay at different seasons using (*Paracentrotus lividus*) sea urchin embryos. PANEL.

2021

SETAC Europe 31th Annual Meeting: global challenges. an emergency for environmental sciences. 3–6 MAY 2021 (Seville, VIRTUAL)

245.- GARCIA-VELASCO N, J. CARRERO, A. GREDILLA, E. URIONABARRENETXEA, J. SCHÄFER, A. DE DIEGO, U. IZAGIRRE, M. SOTO. Understanding the Fluxes of Contaminants Between Water Column, Sediment and Biota by Means of Stable Isotopes Analysis. PANEL.

246.- DIAZ DE CERIO O, I. CANCIO, U. IZAGIRRE, M. ZARRAGOITIA, M. SOTO, B. ZALDIBAR, E. BILBAO. Getting Plentzia Marine Station to the People: "PiEnette" the Research Vanette. PANEL.

247.- GARCIA-VELASCO N, J. CARRERO, E. URIONABARRENETXEA, L.D. JIMÉNEZ, B. ZALDIBAR, A. GREDILLA, O. LIÑERO, A. DE DIEGO, U. IZAGIRRE, M. SOTO. Assessing the toxicity of sediment from four estuaries of the Bay of Biscay using standard and novel bioassays with benthic invertebrates. ORAL.

9th Ibero-American Congress on Contamination and Environmental Toxicology: "Advances in environmental toxicology in the face of the emerging challenges arising from global contamination", Blumenau , SC, Brazil, November 29th - December 2nd, 2021.

248.- SOTO M. Integrated Assessment of the Health of Aquatic and Soil Ecosystems: One Health Vision. INVITED TALK (Keynote speaker)

249.- URIONABARRENETXEA E, GARCIA-VELASCO N, ZALDIBAR B, SOTO M. Impacts of sewage sludges deposition on agricultural soils: effects upon model soil organisms. PANEL.

250.-URIONABARRENETXEA E; GARCÍA-VELASCO N; ANZA M; GARBISU C; ARTETXE U; LACALLE R; BECERRIL JM; SOTO M. Bioremediation of soils degraded by sewage sludge: application of earthworms, microbes and plants. PANEL.

251.- GARCIA-VELASCO N, DONI L, FERNANDEZ-EGILEOR J, CARRERO J.A., URIONABARRENETXEA E., GREDILLA A., DE DIEGO A., IZAGIRRE U., SOTO M. Assessment of the dormant toxicity exerted by polluted sediments from four estuaries of the Bay of Biscay using in vivo and in vitro bioassays with Hediste diversicolor polychaetes. ORAL.

252.-GARCIA-VELASCO N., CARRERO J.A., URIONABARRENETXEA E, ZALDIBAR B, IZAGIRRE U; SOTO M. Testing comparability of existing and innovative bioassays for sediment quality assessment using sea urchins and polychaetes. ORAL

253.- HERENG Y, GARCIA-VELASCO N, URIONABARRENETXEA E, SOTO M, ZALDIBAR B. Determination of the effects produced by contaminated dredged sediment deposition in soils using cell and tissue level biomarkers in Eisenia fetida earthworms. PANEL.

254.- CALMAO M, GARCIA-VELASCO N, BENITO A, THOPPIL R, TORRE-FDEZ I, CASTRO K, IZAGIRRE U, SOTO M. A multi-scale approach for time-course localization of microplastics in target organs of two marine organisms

C.3. Research projects 2019-2021

1. Integrated oil spill response actions and environmental effects. 679266-H2020-EU.3.2.

Entidad: BG-07-2015 H2020-BG-2015-2. IP: UPV/EHU, I Marigómez, Cordinador: K Jorgensen (SYKE, Finland). 2016/03/01 – 2019/08/31. 340.000 €; Total: 5.513.252,5 €

2. Aplicación de estrategias de biorremediación en suelos contaminados por deposición de fangos de depuradora. Entidad financiadora: IHOBE, Proyectos Eco-Innovacion. Coordinador: Manu Soto. 04/12//2017-30/03/2019.33.000 €

3. Nuevas perspectivas sobre las amenazas ecotoxicológicas latentes que plantean los sedimentos estuarinos crónicamente contaminados. CTM2017-87766-R. Entidad financiadora: MINECO. Proyectos I+D+I, del Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad. Convocatoria 2017. Coordinadores: Manu Soto / Ionan Marigómez. 01/01/2018-31/12/2020. 170.000 €.

4. Desarrollo de sistema avanzado y sostenible para la cría en cautividad del Múgil. AKURA.

Entidad financiadora: Gobierno Vasco. Dep. Desarrollo Económico e Infraestructuras. Dirección Pesca y Acuicultura. Convocatoria 2017. Exp. 33-2017-00250 Coordinadores: Javi Etxebarria (Gaiker), Grupo BCTA (Manu Soto). Duración: 01/01/2018-31/12/2019 TOTAL (BCTA):74.492.45 €

5. "Grupo consolidado tipo A BCTA "Biología Celular en Toxicología Ambiental

Entidad financiadora: Gobierno Vasco. Ayudas para apoyar las actividades de grupos de investigación del Sistema Universitario Vasco. Departamento de Educación del Gobierno Vasco, convocatoria 2018. Referencia: IT1302-19 - 2019 – 2021. Coordinadora: Miren P. Cajaraville Duración: 01/01/2019-31/12/2021 IMPORTE TOTAL:347.000 €

6. Desarrollo de un sistema sostenible para la cría en cautividad de mugilidos. Viabilidad Técnica. AKURA II.

Entidad financiadora: Gobierno Vasco. Dep. Desarrollo Económico e Infraestructuras. Dirección Pesca y Acuicultura. Convocatoria 2019. Exp. 00 Coordinadores: Javi Etxebarria (Gaiker), Grupo BCTA (Manu Soto). Duración: 18/11/2019-31/12/2021 IMPORTE TOTAL (BCTA):84.783.90 €

7. Emergencia y diseminación de resistencias a los antibióticos: Vínculos entre salud humana, ganadería, alimentación y medioambiente (KONTRAE) Entidad financiadora: Gobierno Vasco.

ELKARTEK 2020. Proyectos de Investigación Fundamental Colaborativa (ELKARTEK) Coordinadores: Carlos Garbisu (NEIKER), Grupo BCTA (Manu Soto). Duración: 05/2020-31/12/2021 IMPORTE TOTAL (BCTA): 39.187 €

C.4. Contracts, technological or transfer merits

Estudio del estado ecológico del entorno de la descarga en Punta Lucero. Campañas 2000-2021. Petronor, SA. IP. Grupo BCTA: Manu Soto). Aprox.29000 €/year.

Investigador responsable: Jose María Gorostiaga (Grupo BCTA: Manu Soto & Eider Bilbao)

Número de investigadores participantes: 12

Demostración de la infestación por Anisakis en lubina. Financiador: AZTI.

Duración: 01/07/2019-31/12/2019. Investigador responsable: Manu Soto. total del proyecto: 3000 €

Servicios de investigación 2019 para el proyecto ORTZE-CV

Financiador_ INGETEAM Power Technology, S.A. Duración, : 2019

Investigador responsable: Manu Soto. Precio total del proyecto: 5445 €

Demostración de la infestación por Anisakis en lubina. II

Financiador: AZTI. Duración: 07/02/2020-30/06/2020- Investigador responsable: Manu Soto

Precio total del proyecto: 3000 €