

<b>Part A. Personal Information</b>		<b>DATE</b>	08/02/2024
Surname(s)	ORTIZ ZARRAGOITIA		
Forename	MAREN		
Social Security, Passport, ID number			
Sex	Male		
Age	48		
Researcher numbers	Researcher ID	C-3978-2017	
	Open Researcher and Contributor ID (ORCID)	0000-0002-2664-1303	

**A.1. Current position**

Post/ Professional Category	Associated Professor		
UNESCO Code	2407.03		
Key Words	Cell Biology, Ecotoxicology, Reproduction, Endocrinology		
Name of the University/Institution	University of the Basque Country (UPV/EHU)		
	Department/Center	Zoology and Animal Cell Biology	
	Full Address	Sarriena z/g, 48940 Leioa (Spain)	
	Email Address	<a href="mailto:maren.ortiz@ehu.eus">maren.ortiz@ehu.eus</a>	
	Phone Number	94 601 3548	
Start date	21/11/2012		

**A.2. Education (title, institution, date)**

1998	UPV/EHU	First Degree	Bsc Biology (Biotechnology)
2001	UPV/EHU	Masters (if appropriate)	DEA Biology
2005	UPV/EHU	PhD	Effects of endocrine disruptors on peroxisome proliferation, reproduction and development of model organisms, zebrafish and mussel

**A.3. Indicators of Quality in Scientific Production (See the instructions)**

**JCR publications (Web of Science)**

- Total number of publications: 65 (2 Reviews)
- Total number of citations: 2130
- Total number of citations without self-citations: 1678
- Average citations in per year: 90,11
- Total Q1 publications: 52

**H index: 27**

**Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)**

He got the BSc in Biology, mention Microbiology, in 1998 at the UPV/EHU. In 1999, he presented the BSc Thesis in the Department of Zoology and Animal Cell Biology (UPV/EHU) with the qualification of *excellent*. In 2001, he passed the examination for postgraduate Research Activities (Diploma de Estudios Avanzados-Suficiencia Investigadora) in the field of Biology. In 2005, he got the PhD at the UPV/EHU with a final qualification of *excellent cum laude*. During his PhD formation, he did research stays at University of Maryland (Baltimore, MD, USA) and at IRIS-Akvamiljø (Stavanger, Norway). He also participated in marine biological sampling cruises coordinated by IFREMER (France), within the EU funded BEEP project. He was Postdoctoral Researcher at the Cell Biology in Environmental Toxicology research group of the UPV/EHU (2006-2007), and completed a post-doctoral research stay at IRIS-Akvamiljo (2006) and a visiting researcher stay at University of Exeter (UK), awarded with a José Castillejo grant (Spanish Ministry of Education).

He carries out teaching activities at the Department of Zoology and Animal Cell Biology (UPV/EHU) since 2007. In 2012, he obtained the position as Adjunct professor and in 2020 as Associated Professor. His teaching activities include Cell Biology (1<sup>st</sup> level), Tissue Biology (2<sup>nd</sup>

level), Molecular Cell Biology (3<sup>rd</sup> and 4<sup>th</sup> levels) and Comparative Histology (4<sup>th</sup> level) in the BSc of Biology, Biotechnology and Biochemistry and Molecular Biology. In addition, he also taught in the EMJMD in Environmental Contamination and Toxicology (ECT+), EMJMD Marine Environment and Resources, International MSc in Marine Biological Resources and the MSc Environmental Contamination and Toxicology. He is the International Coordinator of the EMJMD ECT+. In addition, he has supervised 25 undergraduate student Final Year Projects, 22 Master Thesis Projects and 4 PhD students. He is now supervising 2 more PhD students. He also supervised 1 postdoc visiting researcher and 2 pre-doc visiting researcher and several undergraduate visiting students. Since 2017, he is the Director of the Master in Scientific Illustration (60 ECTS).

He was member of the Academic Committee for BSc in Biology, Coordinator of 1<sup>st</sup> level studies in Biology, Coordinator of mobility programs in Biology and member of the Faculty Commission for Basque Language. Currently, he is the Vice-Dean for Basque Language and International Relations at Faculty of Science and Technology.

His research focuses on the applications of Cell Biology in Environmental Toxicology: molecular and cellular biomarkers of endocrine disruption and pollution and the study of the processes associated with reproduction and gametogenesis in aquatic species. He is the Head of the Consolidated Research Group "Cell Biology in Environmental Toxicology + One Health" of the UPV/EHU. He has published 63 original research papers and 2 reviews in JCR journals; 2 book chapters and he was the guest editor for a special volume for the journal Comparative Physiology and Biochemistry (2012). He has been the principal investigator of several national and international research project since 2010 and participated in 4 EU funded projects since 2001.

### Part C. Accomplishments (Order by typology)

#### Teaching:

- His teaching activity obtained the maximum recognition level (Excellent) within the UPV/EHU DOCENTIAZ evaluation system (2017, 2021).
- International Coordinator EMJMD Environmental Contamination and Toxicology (ECT+).
- Director of the Master in Scientific Illustration of the UPV/EHU. (60 ECTS)

### C.1. Publications

#### Articles (in last 5 years)

- 1- Bir, J; Rojo-Bartolomé, I; Diaz de Cerio, O; Ortiz-Zarragoitia, M; Cancio, I. *Method for the molecular and quantitative identification of oocytes and their developmental stage in teleost fish gonads*. MethodsX, 12: 102526 (2024).
- 2- Nzioka, A; Madeira, MJ; Kokokiris, L; Ortiz-Zarragoitia, M; Diaz de Cerio, O; Cancio, I. *Lack of genetic structure in euryhaline Chelon labrosus from the estuaries under anthropic pressure in the Southern Bay of Biscay to the coastal waters of the Mediterranean Sea*. Marine Environmental Research, 189: 106058 (2023).
- 3- Bir, J; Rojo-Bartolomé, I; Lekube, X; Diaz de Cerio, O; Ortiz-Zarragoitia, M; Cancio, I. *High production of transfer RNAs identifies the presence of developing oocytes in ovaries and intersex testes of teleost fish*. Marine Environmental Research, 186: 105907 (2023).
- 4- Hafez T; Villate, F; Ortiz-Zarragoitia M. *Reduced Survival and Disruption of Female Reproductive Output in Two Copepod Species (Acartia clausi and A. tonsa) Exposed to the Model Endocrine Disruptor 17 $\alpha$ -Ethinylestradiol*. Toxics, 11: 405 (2023).
- 5- Nzioka, A; Valencia, A; Atxaerandio-Landa, A; Diaz de Cerio, O; Hossain, MA; Korta, M; Ortiz-Zarragoitia, M; Cancio, I. *Apoptosis and autophagy-related gene transcription during ovarian follicular atresia in European hake (Merluccius merluccius)*. Marine Environmental Research, 183: 105843 (2023).
- 6- Hafez T, Ortiz-Zarragoitia M, Cagnon C, Cravo-Laureau C, Duran R. *Cold sediment microbial community shifts in response to crude oil water-accommodated fraction with or without dispersant: a microcosm study*. Environmental Science and Pollution Research, 30: 44640–44656 (2023).

7- Hafez T, Ortiz-Zarragoitia M, Cagnon C, Cravo-Laureau C, Duran R. *Legacy and dispersant influence microbial community dynamics in cold seawater contaminated by crude oil water accommodated fractions*. Environmental Research, 212: 113467 (2022).

8- Hafez T, Bilbao D, Etxebarria N, Duran R, Ortiz-Zarragoitia M. *Application of a biological multilevel response approach in the copepod *Acartia tonsa* for toxicity testing of three oil Water Accommodated Fractions*. Marine Environmental Research, 169: 105378 (2021)

9- Rahdari A, Khoshkholgh A, Yarmohammadi M, Ortiz-Zarragoitia M, Lokman PM, Akhavan SR, Diaz de Cerio O, Cancio I, Falahatkar B. *The effects of 11-ketotestosterone implants on transcript levels of gonadotropin receptors, and foxl2 and dmrt1 genes in the Previtellogenic ovary of cultured beluga (*Huso huso*)*. Journal of Fish Biology, 97: 374-382 (2020)

10- Valencia A, Andrieu J, Nzioka A, Cancio I, Ortiz-Zarragoitia M. *Transcription pattern of reproduction relevant genes along the brain pituitary-gonad axis of female, male and intersex thicklip grey mullets, *Chelon labrosus*, from a polluted harbor*. General and Comparative Endocrinology, 287: 113339 (2020).

11- Aguirre-Rubí J, Ortiz-Zarragoitia M, Izagirre U, Etxebarria N, Espinoza F, Marigómez I. *Prospective biomonitor and sentinel bivalve species for pollution monitoring and ecosystem health disturbance assessment in mangrove-lined Nicaraguan coasts*. Science of the Total Environment, 649:186-200 (2019).

12- De los Ríos A, Echavarri-Erasun B, Dévier M-H, Le Menach K, Budzinski H, Ortiz-Zarragoitia M, Orbea A, Juanes JA, Cajaraville MP. *Assessment of the effects of discontinuous sources of contamination through biomarker analyses on caged mussels*. Science of the Total Environment, 634:116-126 (2018).

13- Aguirre-Rubí J, Luna-Acosta A, Ortiz-Zarragoitia M, Zaldibar B, Izagirre U, Ahrens MJ, Villamil L, Marigómez I. *Assessment of ecosystem health disturbance in mangrove-lined Caribbean coastal systems using the oyster *Crassostrea rhizophorae* as sentinel species*. Science of the Total Environment, 618:718-735 (2018).

## C.2. Research Projects and Grants

1- Population structure of the catadromous thicklip grey mullet (*Chelon labrosus*) and consequences in gonad differentiation due to xenoestrogen exposure in Southern Bay of Biscay estuaries. PGC2018-101442-B-I00. Ministerio de Ciencia Innovación y Universidades. 2019-2022. 177.870,00 € PI: Ibon Cancio & **Maren Ortiz** (UPV/EHU).  
Desarrollo oocitario en peces; diferenciación y maduración hacia la fecundación vs la atresia. AGL2015-63936-R. Ministerio de Economía y Competitividad. 2015-2018. 140.000 € PI: Ibon Cancio & **Maren Ortiz** (UPV/EHU).

2- Valoración de tecnologías de oxidación avanzada para la destrucción de contaminantes emergentes con actividad de disrupción endocrina. S-PE13UN131. SPRI Dto Industria Gobierno Vasco. 2013-2014. 8.000 € **Principal Investigator**.

3- Identificación molecular del sexo, del estadio reproductor y de la fecundidad en peces de interés comercial: mecanismos, aplicaciones y explotación. AGL2012-33477. Ministerio de Economía y Competitividad. 2012-2015. 80.000 € PI: Ibon Cancio (UPV/EHU). Researcher.

4- Biomonitoring mediante biomarcadores sencillos de efectos de disrupción endocrina en poblaciones de mubles (*Chelon labrosus*) de la costa vasca y caracterización mediante bioensayos y biosensores de contaminantes disruptores endocrinos en aguas de depuradoras de la CAV. URA12/03. Agencia Vasca del Agua. 2012. 59.459,40 € **Principal Investigator**.

5- Caracterización del ciclo reproductor del muble (*Chelon labrosus*) como especie centinela para la contaminación en la costa vasca y estudio de los efectos de disrupción endocrina mediante herramientas rápidas y sencillas de aplicar. URA11/03. Agencia Vasca del Agua. 2011. 29.070 € **Principal Investigator**.

6- Determinación del origen de compuestos disruptores endocrinos y estudio de la presencia y caracterización de los efectos de disrupción endocrina en poblaciones de peces (*Chelon labrosus*) de estuario (Reserva de la Biosfera de Urdaibai, estuarios del Butrón y Oiartzun) y costa vasca. URA10/02. Agencia Vasca del Agua. 2010. 22.376,25 € **Principal Investigator**.

7- Grupo consolidado tipo A "Biología Celular en Toxicología Ambiental" (BCTA). IT810-13. Gobierno Vasco. 2013-2018. 491.998 € PI: Miren P. Cajaraville (UPV/EHU). Researcher.

## C.3. Contracts

- Estudio del estado ecológico del entorno de la descarga en Punta Lucero. Campañas 2002-2019. Petronor SA. PI: José María Gorostiaga (UPV/EHU). Researcher.

2002. 4.837,9 €  
2003. 5.629,9 €

2004. 6.423,55 €  
2005. 7.972,44 €

2006. 8.634,53 €  
 2007. 7.317,44 €  
 2008. 7.855,60 €  
 2009. 9.280,01 €  
 2010. 11.680,59 €  
 2011. 10.492,39 €  
 2012. 8.271,53 €  
 2013. 8.000 €  
 2014. 8.000 €  
 2015. 8.815 €

2016. 8.815 €  
 2017. 8.815 €  
 2018. 8.815 €  
 2019. 8.815 €  
 2020. 8.815 €  
 2021. 8.815 €  
 2022. 8.815 €  
 2023. 8.815 €

- Seguimiento de los efectos del vertido del Prestige en las islas Cíes y Ons mediante el uso de biomarcadores tempranos de contaminación. CIS S.L. P229. 2004-2006. 58.464 € PI: Miren P. Cajaraville (UPV/EHU). Researcher.

#### **C.4. Patents and other IPR**

1- Método para la identificación del sexo en peces (ES 2 392 604 B1). Spanish Patent. Authors: Cancio, I; Díaz de Cerio, O; Rojo, I; Bilbao, E; Izaguirre, U; Orbea, A; Soto, M; Marigómez, I; Cajaraville, MP; Ortiz-Zarragoitia, M. Accepted: 05/09/2013.

2- Método para la identificación del sexo en peces (PCT/ES2012/070343). International Patent. Authors: Cancio, I; Díaz de Cerio, O; Rojo, I; Bilbao, E; Izaguirre, U; Orbea, A; Soto, M; Marigómez, I; Cajaraville, MP; Ortiz-Zarragoitia, M. Applied: 14/05/2012.

3- Método para la identificación del sexo en peces II (ES 2 398 811 A2). Spanish Patent. Authors: Cancio, I; Díaz de Cerio, O; Rojo, I; Bilbao, E; Izaguirre, U; Orbea, A; Soto, M; Marigómez, I; Cajaraville, MP; Ortiz-Zarragoitia, M. Applied: 21/03/2013.

#### **C.5, C.6, C.7... Other**

- Vice-Dean for International Relations and Basque Language, Faculty of Science and Technology, UPV/EHU, April 2016-present.
- Coordinator of first course of Biology Degree at UPV/EHU, 2012-2016.
- Coordinator of exchange programme in the Biology Degree at UPV/EHU, 2013-2016.
- Member of the Committee for Biology Studies at UPV/EHU, 2012-2016.
- Former member of the Comitee for Basque Language of the Faculty of Science and Technology at UPV/EHU, 2011-2013.
- Member of the Evaluation Comittes of Erasmus Mundus MSc Marine Environment and Resources Master Thesis works (2006-2022).
- Member of the Evaluation Comittes of Environmental Contamination and Toxicology Master Thesis works (2006-2022).
- Guest Editor of Comparative Biochemistry and Physiology Part A, Vol. 163A(1), 2012.

#### **Membership of scientific societies**

- Society for Environmental Toxicology and Chemistry (SETAC).
- Iberoamerican Society for Environmental Contamination and Toxicology (SICTA).
- European Society of Comparative Physiology and Biochemistry (ESCPB).
- International Society of Fish Endocrinology (ISFE).
- Iberian Association for Comparative Endocrinology (AIEC)
- Spanish Technological Platform for the Development of Zebrafish as Model Organism (DARENET).
- European Association for International Education (EAIE)