

Part A. PERSONAL INFORMATION

CV date	28/0692022
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First and Family name	IBON CANCIO		
Social Security, Passport, ID number		Age	
Researcher numbers	Researcher ID	I-2821-2015	
	Orcid code	0000-0003-4841-0079	

A.1. Current position

Name of University/Institution	UNIVERSITY OF THE BASQUE COUNTRY		
Department	ZOOLOGY AND ANIMAL CELL BIOLOGY		
Address and Country	Barrio Sarriena s/n, 48940 Leioa (SPAIN)		
Phone number	946017670	E-mail	ibon.cancio@ehu.eus
Current position	Associate Professor	From	17-10-2008
Espec. cód. UNESCO	2407.03		
Palabras clave	Biomarkers, transcriptomics, histology, endocrine disruption, sex differentiation in fish		

A.2. Education

BSc in Biology	University of the Basque Country	1992
MSc in Biological Electron Microscopy	University of Wales (Aberystwyth, UK)	1993
European PhD in Biology	University of the Basque Country	1998

A.3. JCR articles, h Index, thesis supervised...

- JCR Articles** total = 64 (80 % in Q1 in environmental Sciences)
- Number of citations received** = 2023 (Scopus)
- h Index** = 24 (Scopus)
- Communications in congresses** = 185

Part B. CV SUMMARY

Associate Professor in Cell Biology in UPV/EHU, accredited for Full Professorship by Spanish ANECA in May 2010 (positive answer of University for promotion July 2020). He has been coordinator of the official Masters degree in "Environmental Contamination & Toxicology" from 2012 to 2020. Researcher in the consolidated research group in "Cell Biology & Environmental Toxicology" of the Basque Government.

Responsible for the incorporation of the Plentzia Marine Station (PiE-UPV/EHU) to the Research Infrastructure EMBRC-ERIC (www.embrc.eu, European Marine Biology Resource Center) within the ESFRI roadmap and Director of its Spanish node.

Research activity focused on 2 main interrelated research lines: Cell & Molecular Biology of fish sex differentiation and Applications of Cell Biology in Toxicology (toxicogenomics, pollution molecular & cellular biomarkers, endocrine disruption).

His teaching activity began in 2000. Together with other 12 European Universities he has participated in student and staff exchange programs within the "Environmental Sciences and Education" Erasmus/Socrates network and in funded projects for European Curriculum Development and generation of open distance learning packages. He was co-responsible for the organization of the Erasmus European Class Bilbao 2003. He has carried out research stays at Universities of Wales (1992-1993), Amsterdam (1994) and Heidelberg (Germany, 1995-1996), Fisheries Research Service (Scotland, 2001) and Catholic Univ. of Leuven (Belgium, 2002). He has supervised 15 Master theses and 7 PhD theses (6 of them International) + 2 ongoing.

He has published 9 book chapters, 64 articles in international peer-reviewed journals and 9 articles in national ones, obtaining the 2nd and 3rd CAF-Elhuyar prizes to the best manuscripts in Science-didactics in Basque (2006 and 2007). Over 75 invited conferences and seminars at Katholieke U. Leuven, Center for Environment, Fisheries & Aquaculture Science (Weymouth, UK); U. Thessaloniki, U. de Santiago de Compostela, National Institute of Bioinformatics (CNIO), Colegio Mayor Miguel de Unamuno; AZTI-Tecnalia, ARCTOS colloquium: Akvaplan-NIVA, (Tromsø); CIC-Biogune, Glasgow Caledonian U., U. Exeter, U. Helsinki, Natural History Museum of Copenhagen, One Pint of Beer Festival, UPV/EHU Science Week 2017 & 2018,

Scientific address to the 17/18 promotion (46th) of students of the School of Sciences and Technology, 25th Annual Newth lecture SAMS (Oban, Scotland)...

He is, or has been, main researcher of different provincial, regional, national and European research projects. Presently, he is main researcher of the Spanish MINECO project BORN2bEGG on the characterization of the population(s) of mullets displaying intersex condition in Basque estuaries. He participates in 4 H2020 projects leading a WP in one of them. Responsible for ABS issues of PIE.UPV/EHU.

Part C. RELEVANT MERITS

C.1. Publications

JCR articles (10 selected contributions; Total publications in ISI Web of Know.= 64)

- 1.- Gomes T; Pinheiro J.P; **Cancio I**; Pereira, C.G; Cardoso, C. Bebianno, M.J. The effects of copper nanoparticles exposure in the mussel *Mytilus galloprovincialis*. ENVIRON. SCI. TECHNOL. 45: 9356-9362 (2011).
- 2.- Diaz de Cerio O; Rojo-Bartolomé I; Bizarro C; Ortiz-Zarragoitia M. **Cancio I**. 5S rRNA and accompanying proteins in gonads: powerful markers to identify sex and reproductive endocrine disruption in fish” ENVIRON. SCI. TECHNOL. 46: 7763-7771 (2012)
- 3.- Ortiz-Zarragoitia M. Diaz de Cerio O; Rojo-Bartolomé I; Bizarro C; Cajaraville M.P. **Cancio I**. Mutilid fish are sentinels of exposure to endocrine disrupting compounds in coastal and estuarine waters. MAR. DRUGS 12: 4756-4782 (2014)
- 4.- Rojo-Bartolomé I; Diaz de Cerio O; Díez G. & Cancio I. Identification of sex and female's reproductive stage in commercial fish species through the quantification of ribosomal transcripts in gonads. PLOS ONE 11(02): e0149711 (2016)
- 5.- Valencia A; Rojo-Bartolomé I; Bizarro C; **Cancio I**; Ortiz-Zarragoitia M. Alteration in molecular markers of oocyte development and intersex condition in mullets impacted by wastewater treatment plant effluents. GEN. COMP. ENDOCRINOL. 245: 10-18 (2017)
- 6.- Diaz de Cerio O, Bilbao E, Izagirre U, Etxebarria N, Moreno G, Díez G, Cajaraville MP, **Cancio I**. Toxicology tailored low density oligonucleotide microarray for the thicklip grey mullets (*Chelon labrosus*): Biomarker gene transcription profile after caging in a polluted harbour. MAR ENVIRON RES. 140:265-277 (2018).
- 7.- Diaz de Cerio, O; Reina, L; Squatrito, V; Etxebarria, N; Gonzalez-Gaya, B; **Cancio, I**. Gametogenesis-related fluctuations in ovthiol levels in the mantle of mussels from different estuaries: fighting oxidative stress for spawning in polluted waters. BIOMOLECULES, 10, 373 (2020)
- 8.- Rojo-Bartolomé I; de Souza J.E.S., Diaz de Cerio O; **Cancio I**. Duplication and subfunctionalization of the general transcription factor IIIA (gtf3a) gene in teleost genomes, with ovarian specific transcription of gtf3ab. PLOS ONE, 15: e0227690 (2020).
- 9.- Scholz, A.H; Lange, M; Habekost, P; Oldham, P; **Cancio, I**; Cochrane, G; Freitag, J. Myth-busting the provider-user relationship for digital sequence information. GIGASCIENCE 10, 1-8, (2021) DOI: <https://doi.org/10.1093/gigascience/giab085>
- 10.- Scholz, A.H; Freitag, J; Lyal, C.H.C; Sara, R; Cepeda, M.L; **Cancio, I** et al., Multilateral benefit sharing from digital sequence information will support both science and biodiversity conservation. NATURE COMMUNICATIONS 13:1086 (2022). <https://doi.org/10.1038/s41467-022-28594-0>

Chapters in books (total 9) and other publications

- 1.- **Cancio, I**. In: Manual de Técnicas de Microscopía Electrónica (MET) Aplicaciones Biológicas (Eds. L Megías & J Renau-Piqueras) Edited Univ. Granada pp:129-143 (1998).
- 2.- Zaldibar, B; **Cancio, I**; Soto, M; Marigómez, I; & Dussart, GBJ. In: “Slugs & Snails: Agricultural, Veterinary & Environmental Perspectives”, (Ed. GBJ. Dussart) British Crop Protection Council Symposium Proceedings. Vol 80 pp: 269-274 (2003).
- 3.- Marigómez, I. Soto, M. **Cancio, I**. Orbea, A. & Cajaraville, M.P. In: Oceanography and Marine Environment of the Basque Country, Chapter 14, (Eds. A. Borja & M. Collins), Elsevier Oceanography Series, Amsterdam, pp: 335-364 (2004).

- 4.- Werding, R. Izagirre, U. **Cancio, I.** Orbea, A. Marigómez, I. & Cajaraville, M.P. In: "Oceanography of the Bay of Biscay" (Eds. I. Alvarez, M. deCastro, M. Gómez-Gesteira, MN. Lorenzo & R. Prego), Aica ediciones, pp: 235-238 (2006).
- 5.- Bilbao, E; Soto, M; Cajaraville, M.P; **Cancio, I;** & Marigómez, I. "In: "Biological Effects of Contaminants in Marine Pelagic Ecosystems", (Eds. K. Hylland; T. Lang; D. Vethaak), SETAC press, pp: 121-141 (2006).
- 6.- Bilbao, E; Ibabe, A; Zaldibar, B; Soto, M; Cajaraville, M.P; **Cancio, I;** & Marigómez, I. In: "Biological Effects of Contaminants in Marine Pelagic Ecosystems", (Eds. K. Hylland; T. Lang; D. Vethaak), SETAC press, pp: 215-234 (2006).
- 7.- Marigomez I, Soto M, Izagirre U, Ortiz-Zarragoitia M, Mugica M, Garmendia L, Corby S, Errasti A, **Cancio I,** Orbea A, Bilbao, E, Cajaraville MP et al. In: "Cambio climático: impacto y adaptación/Klima aldaketa: inpaktua eta egokitzea" (Eds. O. Santa Coloma, E. Feliú, M. Mendizabal) Gobierno Vasco; ISBN 978 84 457 3175 8pp 51-63. (2011).
- 8.- Piña M, Colas P, **Cancio I,** Audic A, Bosser L, Canario A, Johnston I, Kervella AE, Kooistra W, Merciecca M, Nardello I, Pade N, Robinson D, Shoen A, Kloareg B. "The European Marine Biological Resource Infrastructure Cluster, an alliance of European research infrastructures to promote the blue bio-economy" In: "Grand Challenges in Biology and Biotechnology" (Ed. Trincone, A; Rampelotto, PH), Springer Verlag ISBN 9783319690742 pp: 405-421 (2018).
- 9.- Gras, S, Pade N, Kloareg B, **Cancio. I.** Developing research in maritime regions through innovation ecosystems. OPEN ACCESS GOV., 204: 342-343 (2019) ISSN 2516-3817.

C.2. Research projects and grants (selection of 10 projects since 2006)

- 1.- Identificación molecular del sexo, del estadio reproductor y de la fecundidad en peces de interés comercial: mecanismos, aplicaciones y explotación-SEXOVUM. REF: AGL2012-33477. Funding body: Spanish MINECO. **Main Researcher.** Budget: 93.600 € (2013-2015).
- 2.- Implementación de la infraestructura de investigación europea European Marine Biological Resources Centre-EMBRC en la estación marina de Plentzia. REF: PIE EMBRC DFB15/01. Funding Body: Diputación Foral de Bizkaia (DFB). **Main Researcher.** Budget: 227.000 € (2015-2016).
- 3.- Grupo consolidado de Investigación Tipo A: BCTA "Biología Celular en Toxicología Ambiental" REF: IT810-13. Funding body: Department of Education, Universities and Research, Basque Government. **Researcher.** Budget: 491.998€ (2013-2018)
- 4.- European Marine Biology Resource Centre preparatory phase 2-pp2-EMBRC. REF: INFRADEV -2-201515/01. Funding body: EU-H2020 (H2020-INFRADEV -2-201515/01). **Main Researcher.** Budget: 71.000 €. UPV/EHU (2015-2016)
- 5.- Desarrollo oocitario en peces; diferenciación y maduración hacia la fecundación vs la atresia-ATREoVO. REF: AGL2015-63936-R. Funding body: Spanish Ministry of Economy and Competitiveness-MINECO. **Main Researcher.** (Co-PI: M. Ortiz-Zarragoitia) Budget: 169.400 € (2016-2018)
- 6.- Association of European marine biological laboratories expanded-ASSEMBLE PLUS. Code H2020 INFRAIA-01-2016-2017. Funding body: European Commission (H2020 INFRAIA-01-2016-2017). **Main Researcher in UPV/EHU and leader WP on sustainability.** Budget: UPV/EHU and UVigo Spanish partners 739.672,33 € (2018-2022)
- 7.- European Marine Biological Resource Centre Biobank-EBB. Interreg Atlantic Area. **Main Researcher in UPV/EHU and leader WP6.** Budget 184.000€ (2017-2021).
- 8.- ERIC Forum Implementation Project-ERIC-Forum. (Grant Agreement No. 823798) Funding body: European Commission (H2020-INFRA SUPP-01-2018-2019). **Main Researcher in UPV/EHU,** Budget: PiE-UPV/EHU 22.100 € **Duración:** (2019-2022).
- 9.- Providing an open collaborative space for digital biology in Europe-EOSC-Life. (Grant Agreement No. 824087). Funding body: European Commission (H2020-INFRAEOSC-2018-2020). **Main Researcher in UPV/EHU,** Budget: 23,745,996.25€;in PiE-UPV/EHU 91.250 € (2019-2022)
- 10.- 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. (BORN2bEGG). REF: PGC2018-101442-B-I00. Funding body: Spanish Ministry of Science, Innovation and Universities. Role in project: **Main Researcher**. (Co-PI: M. Ortiz-Zarragoitia) Budget: 177.870 € (+1 PhD contract) (2019-2022).

C.3. Selected contracts

- 1.- Estudio del estado ecológico del entorno de la descarga en Punta Lucero. PETRONOR, S.A. Budget: 3.250.000 pts (2001)
- 2.- North Sea Water Column Monitoring Project-2003. NORSK HYDRO. Budget: 28.503,29 € (2003)
- 3.- North Sea Water Column Monitoring Project-2004. NORSK HYDRO. Budget: 7.725,39 € (2004).
- 4.- Seguimiento de los efectos del Prestige en las islas Cies y Ons mediante el uso de biomarcadores tempranos de contaminación. Centro de Investigaciones Submarinas CIS, S.L. Budget: 58.464 € (2004-2006).
- 5.- Toxic action of molluscicides: the effect of the application mode. De Sangosse (register nº in France 300 163 896). Budget: 63.000 euros (2011-2012).
- 6.- Implementación de la infraestructura de investigación europea European Marine Biological Resources Centre-EMBRC en la estación marina de Plentzia. REF: PIE EMBRC. FB15/01. Diputación Foral de Bizkaia. Budget: 227.000 €. (2015-2016).
- 7.- Zientziakide Science citizen program for eDNA analysis of ichthyological diversity in schools. ELHUYAR Fundazioa. Budget 4.250 € (2017).
- 8.- eDNA for the identification of PKD parasite and intermediate host in a rainbow trout facility. NUSI. Budget 5.400 € (2019).

C.4. Patents

NATIONAL Spanish Patent ES2392604 (A1). Method for identifying the sex of fish. **Inventor(s)**: Cancio I; et al. **Classification**: C12Q1/68-cooperative: C12Q1/6879; C12Q1/6888. **Application n**: WO2012ES70343 20120514. **Priority n(s)**: ES20110030778 20110513. **Also**: ES2392604 (B1)

NATIONAL Spanish Patent ES 2 398 811 A2 Method for identifying the sex of fish II. divisional Patent, application number and date: P201130778, 13-05-2011. **Inventor(s)**: Cancio I; et al. **Classification**: C12Q 1/68 (2006.01). **Application n**: P 201230651 (9). **Also published as**: ES2398811(A2)

C.5 Institutional and scientific responsibilities

- 1.- Coordinator of the Official Master program in “Environmental Contamination and Toxicology” (UPV/EHU) since 2012.
- 2.- Director of the Spanish Node of the ESFRI roadmap research infrastructure European Marine Biology Resource Center, EMBRC-ERIC.
- 3.- Member of the “Aquaculture Advisory Board” of the Basque Government (AKUIBATZAR). Elaboration of the strategic plan 2014-2020 in aquaculture of the Basque auton. region.
- 4.- Elected member General Board in Science & Techn. Faculty (UPV/EHU) since June 2020.
- 5.- Member of the international “DSI Scientific Network”: <https://www.dsmz.de/collection/nagoya-protocol/digital-sequence-information/dsi-scientific-network>

C.6 Scientific societies

Sociedad Española de Biología Celular and ECBO. Member and Founder of Sociedad Ibérica de Contaminación y Toxicología Ambiental, SETAC (Society of Environmental Toxicology and Chemistry), Universidad Vasca de Verano/Udako Euskal Unibertsitatea (UEU).