

Part A. PERSONAL INFORMATION

		CV date	2023/06/10
First and Family name	Nestor Etxebarria Loizate		
ID number		Birth date	08/10/1964
Researcher numbers	Researcher ID	C-7341-2008	
	Orcid code	0000-0002-2942-9463	

A.1. Current position

Name of University/Institution	Universidad del País Vasco / Euskal Herriko Unibertsitatea		
Department	Dept. Analytical Chemistry		
Address and Country	Plentzia Marine Station & Faculty of Science & Technology		
Phone number	94 601 5530	E-mail	nestor.etxebarria@ehu.eus
Current position	University Professor	From	30/10/2011
UNESCO Code	2301 10 – 2301 11		
Keywords	Analysis of organic micro-contaminants – Mass spectrometry- Environmental Analysis		

A.2. Education

Degree	University	Year
PhD	UPV/EHU	1993
BSc	UPV/EHU	1987

A.3. Quality indicators of the scientific production

My research is focused to the application of high-throughput analytical techniques, HPLC-HRMS, and non-targeted approaches to environmental issues. In this context, we are working on the exposure effects of contaminants in organisms and in human health and in the metabolomics analysis of endogenous metabolites.

- 5 research periods of six years (last one 2021)
- 6 Ph D Thesis were supervised between 2012-22 (15 in total)
- A2-level Researcher (Unibasq. 2022)
- 178 publications, >4000 total citations, 400 ave. cit (2019-22), and *h*-index 38
- Q1 publications: 140

Part B. CV summary (max. 3500 characters, including spaces)

Nestor Etxebarria Loizate, PhD in chemical sciences (1993), and since 2011 Professor at the Dept of Analytical Chemistry of the UPV/EHU. Currently I am member of the IBeA Research Group (www.ehu.eus/ibe), a high-performance research group including 16 PhD staff members and more than 20 researchers, and one of the main groups supporting the Plentzia Marine Station (PiE). The research activities started during the PhD and were focused on solution equilibria studies. Later, during my postdoc stage at the JRC-IRMM (Geel, Be) I worked with the implementation of instrumental neutron activation analysis for the quality control of the production of reference materials. Once back at the UPV/EHU, I focused the research activities on the analysis of organic microcontaminants and ecotoxicology.

In the last five years, we are leading a research group in the development of nontarget analytical methods and the application in environmental and ecotoxicological issues. In this sense, we have coordinated three research projects from the Spanish Ministry addressing these methods in metabolomics and exposomics and taking part in many collaborative and interdisciplinary projects. Since the opening of the PiE in 2014, our activities are getting focused in marine environmental issues in joint research projects. Our group collaborates with several research groups of the Basque Country, Spain and Europe, especially those carried out in the frameworks of the European [Norman](#) network and the [EMBR](#)C (European Marine Biological Research Centre).

We are also deeply engaged in the Erasmus + on Marine Environment and Resources (MER, merconsortium.eu) and the new Erasmus + on Environmental Contamination and Toxicology (eCT, ectplus.eu). Finally, our group is part of the *Joint Research Laboratory on Environmental Antibiotic*

Resistance including the main research organizations in the Basque Country (UPV/EHU, BC3-Basque Centre for Climate Change, Neiker and CIC-BioGune).

I am co-author of 192 publications in international journals and co-author of four textbooks of chemistry and analytical chemistry in Basque. As mentioned, I was the PI of three projects of the Spanish Ministry, I have also participated in an H2020 project (2016-19), and recently BlueAdapt EU project (in call HORIZON-HLTH-2021-ENVHLTH-02) has been approved.

I have supervised 15 PhDs and more than 25 master theses. Between 2008 and 2011, I was the coordinator of the Grade in Chemistry at the Faculty of Science & Technology. From 2011 to 2019, I was the Head of the Department of Analytical Chemistry at the UPV/EHU. Currently, I am member of the academic board of the Erasmus Mundus Master on Marine Environment and Resources (now Erasmus+, 2018-2023) and since May 2020, I am the coordinator of the Master on Environmental Contamination and Toxicology (UPV/EHU).

Part C. RELEVANT MERITS

C.1. Publications (including books) 2018-2023

- Mikel Musatadi, Asier Andrés-Maguregi, Francesca De Angelis, Ailette Prieto, Eneritz Anakabe, Maitane Olivares, **Nestor Etxebarria**, Olatz Zuloaga, *The role of sample preparation in suspect and non-target screening for exposome analysis using human urine*, Chemosphere, **2023**, 139690,
- Alvarez-Mora, I., Bolliet, V., Lopez-Herguedas, N., Monperrus, M., **Etxebarria, N.** *Metabolomics to study the sublethal effects of diazepam and irbesartan on glass eels (*Anguilla anguilla*)*. Aquatic Toxicology, **2023**, 259,106547
- Lopez-Herguedas, N., González-Gaya, B., Cano, A., Alvarez-Mora, I., Mijangos, L., **Etxebarria, N.**, Zuloaga, O., Olivares, M., Prieto, A., *Effect-directed analysis of a hospital effluent sample using A-YES for the identification of endocrine disrupting compounds*, Science of the Total Environment, **2022**, 850, 157985. 10.1016/j.scitotenv.2022.157985
- Alvarez-Mora, I., Bolliet, V., Lopez-Herguedas, N., Castro, L., Anakabe, E., Monperrus, M., **Etxebarria, N.** *Prioritization based on risk assessment to study the bioconcentration and biotransformation of pharmaceuticals in glass eels (*Anguilla anguilla*) from the Adour estuary (Basque Country, France)*, Environmental Pollution, **2022**, 311, art. no. 120016, 10.1016/j.envpol.2022.120016
- Alvarez-Mora, I., Mijangos, L., Lopez-Herguedas, N., Amigo, J.M., Eguiraun, H., Salvoch, M., Monperrus, M., **Etxebarria, N.** *SETApp: A machine learning and image analysis based application to automate the sea urchin embryo test*, Ecotoxicology and Environmental Safety, **2022**, 241, art. no. 113728, .
- González-Gaya, B., Lopez-Herguedas, N., Santamaria, A., Mijangos, L., **Etxebarria N.**, Olivares M., Prieto, A., Zuloaga, O. *Suspect screening workflow comparison for the analysis of organic xenobiotics in environmental water samples*, Chemosphere, **2021**, 274, 129964
- Schulze, B., van Herwerden, D., Allan, I., Bijlsma, L., **Etxebarria, N.**, Hansen, M., (...) Samanipour, S. *Inter-laboratory mass spectrometry dataset based on passive sampling of drinking water for non-target analysis*, Scientific Data, **2021**, 8 (1), art. no. 223. 10.1038/s41597-021-01002-w
- González-Mariño, I.; Ares, L.; Montes, R.; Rodil, R.; Cela, R.; López-García, E.; Postigo, C.; López de Alda, M.; Pocurull, E.; Marcé, R.; Bijlsma, L.; Hernández, F.; Picó, Y.; Andreu, V.; Rico, A.; Valcárcel, Y.; Miró, M.; **Etxebarria, N.** & Quintana, J. *Assessing population exposure to phthalate plasticizers in thirteen Spanish cities through the analysis of wastewater*. Journal of Hazardous Materials, **2021**, 401
- Mijangos, L.; Krauss, M.; De Miguel, L.; Ziarrusta, H.; Olivares, M.; Zuloaga, O.; Izaguirre, U.; Schulze, T.; Brack, W.; Prieto, A. & **Etxebarria, N.** *Application of the Sea Urchin Embryo Test in Toxicity Evaluation and Effect-Directed Analysis of Wastewater Treatment Plant Effluents*, Environmental Science and Technology, **2020**, 54, 8890-8899
- Ziarrusta H., Ribbenstedt A., Mijangos L., Picart-Armada S, Perera-Lluna A., Prieto A., Izaguirre U., Benskin J.P., Olivares M, Zuloaga O, **Etxebarria N.** *Amitriptyline at an Environmentally Relevant Concentration Alters the Profile of Metabolites Beyond Monoamines in Gilt-Head Bream*. Environmental Toxicology and Chemistry **2019**, 38, 965-977.
- Mijangos L., Ziarrusta H., Ros O., Kortazar, L., Fernández L.A., Olivares M., Zuloaga O., Prieto A., **Etxebarria N.** *Occurrence of emerging pollutants in estuaries of the Basque Country: Analysis of sources and distribution, and assessment of the environmental risk*. Water Research. **2018**, 147, 152-163

C.2. Research projects and grants

Reducing climate based health risks in blue environments: Adapting to the climate change impacts on coastal pathogens (BlueAdapt)

ID 101057764 (HORIZON-HLTH-2021-ENVHLTH-02) PiE-UPV/EHU 221.250€ (2022-26)

Coordinator BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGA (9 partners)

Ionan Marigomez (UPV/EHU Coord), Marc Neuman (BC3, General coordinator)

One Health Observatory Lighthouse: (HOBE)

TED2021-132109B-C21 Coordinated with the Basque Centre for Climate Change BC3

2023-2024 (368.000 € UPV/EHU)

Oihane Diez de Cerio- Nestor Etxebarria

AQUASOMICS (High-throughput analytical strategies to assess environmental and human exposure to emerging contaminants)

AEI PID2020-117686RB-C31

2021-2025 (180.000 €)

Nestor Etxebarria & Olatz Zuloaga

IBeA en medio ambiente físico, urbano construido, recursos naturales y salud (Grupos Consolidados Tipo A) (ref. IT-1446-22)

Gobierno Vasco

01/01/2022 - 31/12/2025 633.150 €

IP: Juan Manuel Madariaga Mota

Development of methodological tools for assessment of the impact and risk of antibiotic resistance in the environment". Convocatoria Proyectos Colaborativos UPV/EHU (2019)

COLAB19/08

2020-2021. 36000 €

Itziar Alkorta

Red Esar-Net. Exploración de las aguas residuales como indicador complementario, rápido y objetivo sobre el consumo de sustancias de abuso"

Convocatoria de ayudas para el desarrollo de proyectos de investigación sobre adicciones 2020 (nº exp. 2020I009) 2021-2023. 92994€

J.B. Quintana (USC)

DESARROLLOS EN LA NANOESCALA PARA MANUFACTURA Y ASISTENCIA SANITARIA.

Elkartek KK-2022/00001. Basque Government, ELKARTEK 2022, Nanogune, Vicomtech, Fundación Alzheimer, Mondragon Univ., UPV/EHU

2022-Jan – 2023-Dic (2 years). Funding: 129.642€.

Kepa Castro (UPV/EHU)

Evaluación del exposoma por la presencia de contaminantes emergentes en medios acuáticos

CTM2017-84763-C3-1-R. MINECO 2017

2018-2020 145.200 euros

Olatz Zuloaga & Nestor Etxebarria (PiE-UPV/EHU)

GRACE. Integrated oil spill response actions and environmental effects

H2020-BG-2015-2

European Union (www.syke.fi/projects/grace)

2016-2019 325.000 € (UPV/EHU)

Kirsten Jørgensen, Finnish Environment Institute (SYKE)

Ionan Marigomez (PiE-UPV/EHU)

Metodologías novedosas para evaluar el impacto de los contaminantes emergentes en los ecosistemas marinos y el consumo de alimentos

CTM2014-56628-C3-1-R MINECO 2014

2015-2017 140.000 euro

Nestor Etxebarria y Olatz Zuloaga (PiE-UPV/EHU)

C.3. Contracts

DETECCIÓN Y TRATAMIENTO DE CONTAMINANTES EMERGENTES, BACTERIAS Y GENES RESISTENTES A ANTIBIÓTICOS Y ENSAYOS DE TOXICIDAD AMBIENTAL Y HUMANA EN AGUAS DE ABASTECIMIENTO DE BIZKAIA

Consorcio de Aguas Bilbao-Bizkaia-EUPV/EHU-Cadagua S.A.-Gaiker

2020-2022 414.853 €

IP Nestor Etxebarria

Other merits (e. g., Institutional responsibilities, memberships of scientific societies...)

C5 Stages in international sites:

- Royal Institute of Technology (KTH) (Estocolmo, Suecia). *Migration of radionuclides in groundwaters* 1990, July-Sept. (12 weeks)
- Institute of Reference Materials and Measurements JRC-IRMM (Geel, Bélgica). *Development and application of Instrumental neutron activation analysis for the production and certification of reference materials*. 1994-1996 (2 years)

C6 Academic activities

- PhD Thesis: 4 (2016-22) and 3 more on-going
- Master thesis and Grade thesis supervision: 24
- Member of the academic board of Erasmus Mundus Master on Marine and Environmental Resources (since 2007/08) and from 2018 to 2023 Erasmus + Master. UPV/EHU, U. Bordeaux I, U. Liege, U. Southampton, U. Azores)
- Coordinator of the Grade in Chemistry June 2008 - July 2011
- Head of Department of Analytical Chemistry July-2011-2019
- Coordinator of the Master Environmental Contamination and Toxicology (May2020-)
- Summer Courses of the UPV/EHU
2019. Resistencia a antibióticos en el medio ambiente: origen de un escenario apocalíptico
2020. Resistencia a antibióticos. Una visión One Health: personas y animales sanos y medio ambiente más seguro

C7 Other activities

- Co-author de 5 textbooks
- Co-author of 10 book chapters
- More than 25 communications in international congresses
- Member of Scientific committee in 2 International Congresses: 40th Int. Conf. on Environmental & Food Monitoring (ISEAC-40), 2018 and VI Int Symp on Marine Sciences (ISMS2018).
- Supervisor of Radioactive Installation (CSN) 2012- (IRA/2817 X-ray fluorescence X)
- Referee in Anal. Chim. Acta, J. Chromatogr. A, Talanta, Toxicol. Environ. Chem., Sci. Tot. Environ., Est. Coast. Shelf Sci., Water Research, Wiley)
- Reviewer of National Evaluation and Foresight Agency (ANEP)
- Outreach activities:
 - Elhuyar Science Fair. In the last three years I have participate in mentoring high school students in different chemical and environmental projects.
 - Open-days @ PiE to show the research activities at the Marine Station.
 - Teknopolis (EiTB) on Water treatment systems and the impact of emerging contaminants.
 - Ikergazte (2017,2019,2021,2023)
- Norman Network. I am attending all the General Assemblies since 2016.
- EMBRC activities @ PiE-UPV/EHU
 - Stazione Zoologica Anton Dohrn (Naples, It). Two stages (2018 & 2019)
 - Norwegian University of Science and Technology. One stage (2019)