



CURRICULUM VITAE (CVA).

CV date 06-04-2022

Part A. PERSONAL INFORMATION

First name	Sara		
Family name	Rodriguez Mozaz		
Gender (*)	Female	Birth date	13/02/1972
Social Security, Passport, ID number	33445144Q		
e-mail	srodriguez@icra.cat	URL Web	
Open Research and Contributor ID (ORCID)(*)	0000-0003-2962-8144		

(*) Mandatory

A.1. Current position

Position	Research Scientist		
Initial date	April 2009		
Institution	Catalan Institute for Water Research (ICRA)		
Department/Center	Water Quality. Chemical contamination of water bodies		
Country	Spain	Teleph. number	972 183380
Key words	Emerging Pollutants, pharmaceuticals, analytical methods, environmental impact, human health, bioaccumulation, metabolites, metabolomics, microplastics		

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

Period	Position/Institution/Country/Interruption cause
Sept 1997- Sept 1999	Trainee/Public University of Navarra/Spain/new position
Sept 1999-August 2000	Trainee (Leonardo fellowship/Merck/Germany/new position)
Sept 2000-October 2005	Predoc/CSIC/Spain/PhD defense
November 2005-June 2007	Postdoc/Sanofi-Aventis/Germany/contract finished
Oct 2007-December 2008	Postdoc/University of North Carolina/US/new position at ICRA

A.3. Education

Academic Degree	University/Country	Year
Bachelor and Master	Universidad de Zaragoza/Spain	1997
PhD	Universidad de Barcelona/Spain	2005

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

Sara Rodriguez-Mozaz graduated in 1997 from the University of Zaragoza, with a **master degree in analytical chemistry**. During the following 2 years (1997-1999) she worked as a **research assistant** in the department of Applied Chemistry at the "Universidad Pública de Navarra" in the detection of volatile compounds. The researcher was awarded by a 9 months fellowship (1999-2000) by the **Leonardo Da Vinci Program** in the pharmaceutical company Merck in Darmstadt (Germany), where she was collaborating in the development of colloidal nanocrystals (coauthorship in a patent). From September 2000 to October 2005, the applicant was working at the Institute of Environmental Assessment and Water Research (IDAEA-CSIC) in Barcelona, where she completed her **Doctor's degree** (Oct 2005) on advanced analysis of organic pollutants in the environment. After finishing her PhD, the researcher initiated her **postdoctoral period** in the department "Discovery Analytics" in the pharmaceutical company **Sanofi-Aventis in Frankfurt**, Germany (Nov 2005- May 2007) where she developed a metabolomics strategy for the discovery of biomarker of drug activity and effects. In her second postdoctoral stay (Oct 2007- Dec 2008) at the department of Environmental Sciences and Engineering, in the **University of North Carolina** (USA), she was investigating alternative water disinfection methods and the formation of disinfection byproducts (DBPs).

Since April 2009, she works as **Research Scientist** in the “Catalan Institute for Water Research” (ICRA) where she focuses on the study of the origin, fate and ecological impact of the so-called emerging contaminants in the environment to better know the sources, and processes that control their fate and the potential effects in the ecosystems and human health. With this objective 4 different complementary strategies are integrated:

- Study of the fate of emerging microcontaminants in the aquatic environment through **advanced analytical methods** for the determination of different organic micropollutants, such as pharmaceutical compounds (including antibiotics), endocrine disruptors, plastic additives, etc.
- Study of the **uptake accumulation and metabolization** of emerging microcontaminants in aquatic organisms and crops irrigated with **reclaimed water**. Impact of chemical pollutants on **human health** through diet.
- Study of biotic and abiotic **transformation of contaminants** to understand the processes that control their degradation in the environment.
- Evaluation of the **effects of contaminants on ecosystems** using in vivo, in vitro, in silico approaches and metabolomics strategies.

Some relevant achievements as a research scientist at ICRA:

- **Publications:** >140 ISI publications and 14 Book chapters, Editor of 1 Book; H-index 60.
- **Editorship:** associated editor in “Journal of Hazardous Materials” (2019-2022) Guest Editor in “Environmental Research” (2015) and “Food and Chemical Toxicology” (2017)
- **Research Projects:** Participation in 13 international and 6 national **research projects** in the last 10 years. Principal Investigator in 8 of them.
- **Supervision** of 12 postdoc researchers, **5 PhD thesis** and external examiner in 10 PhD thesis from Spain and other Universities abroad (Finland, Netherlands, Brazil, etc.)
- **Supervision** of **guest researchers** (trainees, PhD students and postdoctoral fellows) from Tunisia, New Zealand, Brasil, Argentina, Turkey, > 6 EU countries and also Spain.
- **Evaluation** committees of “Juan de la Cierva” fellowships and “Retos” research projects (AEI); and JPI, and evaluation panels from Israel, Belgium, Switzerland, Netherlands, Croatia, Latvia, Chec Republic & Argentina
- Participation in national and international **thematic areas and Networks:** NORMAN Network (EU network on emerging pollutants; since 2009 till date), EU Cost Actions NEREUS (2014-2017) and PRIORITY (2021-2024); ERNCIP; (JRC, Ispra; 2012-2015); FOTOCAT (MINECO 2016-2018); ESAR-NET (AEI, 2020-2022).
- **Dissemination Activities.** Work developed has been disseminated through different media, in local and national public media including TV, newspapers, radio and Internet:
 - o <https://www.rtve.es/alacarta/videos/en-linia/teletreball-repoblar-microplastics-youtubers/5678513/> min 47'
 - o https://elpais.com/elpais/2019/03/27/ciencia/1553669229_957668.html
 - o <https://www.ccma.cat/tv3/alacarta/app/apptv3/video/5775815/>
 - o <http://www.rtve.es/alacarta/videos/el-escarabajo-verde/escarabajo-verde-tormenta-perfecta/4068474/>
 - o http://ccaa.elpais.com/ccaa/2013/11/16/catalunya/1384630726_033077.html
 - o http://sociedad.elpais.com/sociedad/2013/03/21/actualidad/1363898529_045059.html
 - o <http://www.rtve.es/alacarta/videos/informatiu/farmacs-medicaments-arriben-als-peixos/1673434/>

Part C. RELEVANT MERITS

C.1. Publications (selected from the last 10 years)

Water Treatment and Reuse

- Jaén-Gil, A.; Farré, M.-J.; Sànchez-Melsió, A.; Serra-Compte, A.; Barceló, D.; and Rodriguez-Mozaz, S. Effect-based identification of hazardous antibiotic transformation products after water chlorination. *Environ. Sci. Technol.* 54, (2020) 14, 9062–9073

- Marta Llorca, Daniel Lucas, Laura Ferrando-Climent, Marina Badia-Fabregat, Carles Cruz-Morató, Damià Barceló, and Rodríguez-Mozaz, S.*. Suspect screening of emerging pollutants and their major transformation products in wastewaters treated with fungi by liquid chromatography coupled to a high resolution mass spectrometry. *Journal of Chromatography A*, 1439 (2016) 124–136
- Rodríguez-Mozaz, S.*, Ricart, M., Köck-Schulmeyer, M. (...) Barceló, D. Pharmaceuticals and pesticides in reclaimed water: Efficiency assessment of a microfiltration-reverse osmosis (MF-RO) pilot plant. *Journal of Hazardous Materials*, 282 (2015) 165-173
- Rodríguez-Mozaz, S., Chamorro S., Marti, E.; Huerta, B., Gros, M.; Sanchez-Melsio, A., Borrego, C.; Barceló. D.; Balcazar, J.L.* Occurrence of antibiotics and antibiotic resistance genes in hospital and urban wastewaters and their impact on the receiving river. *Water Research* 69 (2015) 234-242

Environmental and human health impact of emerging pollutants

- Serra-Compte, A., Pikkemaat, M.G., Elferink, A. (...) and Rodríguez-Mozaz, S.* Combining an effect-based methodology with chemical analysis for antibiotics determination in wastewater and receiving freshwater and marine environment. *Environmental Pollution* 271 (2021) 116313
- Rodríguez-Mozaz, S., Serra-Compte, A., Gil-Solsona, R., Alvarez-Muñoz, A. Environmental metabolomics and xenometabolomics for the assessment of exposure to contaminant mixtures. In *Environmental metabolomics. Applications in Field and Laboratory Studies to Understand from Exposome to Metabolome* (2020) Elsevier. ISBN: 978-0128181966
- Rodríguez-Mozaz S.*, Vaz-Moreira, I., Varela Della Giustina, S. (...) Manaia, C. Antibiotic residues in final effluents of European wastewater treatment plants and their impact on the aquatic environment. *Environment International* 140 (2020) 105733
- Álvarez-Muñoz, D., Sara Rodríguez-Mozaz*, Jacobs, S. (...) Barceló, D. Pharmaceuticals and endocrine disruptors in raw and cooked seafood from European market: Concentrations and human exposure levels. *Environment International* 119 (2018) 570–581

C.2. Conferences

Invited Conferences and seminars in the last 5 years (selection)

Regional and National

- Rodríguez-Mozaz, S. Contaminantes ambientales emergentes en peces. IX Workshop de evaluación del riesgo en la cadena alimentaria. Riesgos emergentes en los productos del mar. Barcelona (Spain) 5th July 2017
- Rodríguez-Mozaz, S. "Proyecto H2020 HYDROUSA: economía circular, destino de los contaminantes emergentes y evaluación de la seguridad alimentaria". III Congreso del Agua en Cataluña. Barcelona (Spain), 20th-21st March 2019
- Rodríguez-Mozaz, S. "Eliminación o persistencia de antibióticos y genes de resistencia a antibióticos durante el tratamiento de aguas residuales". II Edición de la Jornada Científico-Técnica "El agua residual como fuente de recursos" de la Catedra DAM de la Universitat de València. Valencia (Spain), 3rd December 2019

International

- Rodríguez-Mozaz, S. Evaluation of conventional and alternative (fungal) treatment of hospital and urban wastewater in the removal of antibiotics and antibiotic resistance genes. SfAM. Antimicrobial Resistance Conference 2017. Meeting the Challenge. Society for Applied Microbiology. London, UK, 23 – 24 Nov 2017
- Rodríguez-Mozaz, S. "Bioaccumulation of emerging organic contaminants in aquatic organisms. Chemical Analysis". Workshop on advanced techniques for the analysis of trace emerging contaminants in environmental samples. Zagreb, Croatia, 23th Febr. 2018
- Rodríguez-Mozaz, Sara. "Bioaccumulation and impact of emerging contaminants in aquatic organisms in laboratory and field studies" The Science Seminars; University of Alberta (Canada) 15/10/2020 *Webminar*

C.3. Research projects (selected among the most recent ones)

National

ReUseMP3- Integrating nature-based water ReUse strategies with advanced Monitoring of the Presence and impact of MicroPollutants and MicroPlastics. Spanish State Research Agency, AEI. PI ICRA: Sara Rodriguez-Mozaz & Gianluigi Buttiglieri. From 01/09/2021 till 31/08/2024. Budget ICRA: 144.000

PLAS-MED “Microplastics and micro-pollutants on the Mediterranean coast: Toxicity and impact on environment and human health” Spanish State Research Agency, AEI. Coordinator: Marinella Farre (CSIC, Barcelona); IP ICRA Sara Rodriguez-Mozaz, From January 1st 2018 till September 30th 2021. Budget ICRA 132.000.

H2PHARMA – “Fungi, algae and bacteria for the degradation of drugs; Fungal treatment of hospital effluent”. Ministerio de Economía y Competitividad (MINECO). Coordinator: Teresa Vicent (Autonomous University of Barcelona, Spain); PI ICRA Sara Rodriguez-Mozaz. From 1st January 2014 till 31st July 2017. Budget ICRA: 95.000

European

ARENA- Antibiotic RESistaNce and Pathogenic Signature in Marine and Freshwater Aquaculture Systems. EU, 2020 Water JPI. Coordinator: Dr Gian Marco Luna (CNR, Italy); PI ICRA: Sara Rodriguez-Mozaz. From 01/09/2021 till 31/08/2024. Budget ICRA: 150.000

LIFE-RECYCLO- RECYCLing waste water from small and medium sized laundries with advanced Oxidation process. LIFE EU, 2020. Coordinator: Dr Bruno Cedat (TreeWater, France); PI ICRA: Sara Rodriguez-Mozaz & Gianluigi Buttiglieri. From 01/09/2021 till 31/08/2024. Budget ICRA: 74.140

SCOREwater “Smart City Observatories implement RESilient Water Management” EU 2018 H2020. GA n. 820751. Coordinator: Johan M. Sanne (Sweeden); IP ICRA Lluís Corominas, From May 1st 2019 till April 30th 2023. Budget ICRA SCOREwater 388.512.

HYDROUSA “Demonstration of water loops with innovative regenerative business models for the Mediterranean region” EU 2018 H2020. Coordinator: Simos Malamis (Greece); IP ICRA Gianluigi Buttiglieri, From July 1st July 2018 till June 30th 2023. Budget ICRA 474.300.

StARE-“Stopping Antibiotic Resistance Evolution” EU, 2013 Water JPI Pilot Call.

Coordinator: Celia Manaia (Portugal); PI ICRA: Sara Rodriguez-Mozaz. From 1st January 2015 till 31st December 2017. Budget ICRA: 115.823

SEA-on-a-CHIP “Real time monitoring of sea contaminants by an autonomous Lab-on-a-Chip Biosensor” European Union, FP7-OCEAN-2013 (grant agreement No.614168).

Coordinator: Damia Barceló (IDAEA-CSIC) PI ICRA: Sara Rodriguez-Mozaz From 1st December 2013 till 31st May 2017. Budget ICRA: 179.151

ECsafeSEAFOOD - Priority environmental contaminants in seafood: safety assessment, impact and public perception FP7- KBBE.2012.2.4-01

Coordinator: Antonio Marqués IPMA (Portugal); PI ICRA: Damià Barceló From 1st February 2013 till 31st January 2017. Budget ICRA: 221.858

C.4. Contracts, technological or transfer merits

Contract University of Dublin (2021) PI ICRA: S Rodriguez-Mozaz. Budget: 21.098 €

Contract Universidade do Minho (2021) PI ICRA: S Rodriguez-Mozaz. Budget: 16.260 €

Contract INIA, Madrid (2021) PI ICRA: S Rodriguez-Mozaz. Budget: 4.138 € (IVA included)

ITACA - “Investigation in new water treatment technologies, reuse and control for the future sustainability of water treatment processes (October 2011-Oct 2015). MICINN; INNPRONTA. PI ICRA: Ignasi Rodriguez-Roda. Budget: 131.000

SAFENATUR - “New Technologies for the automatic characterization of effluents of WWTPs for the environment protection. (September 2009- July 2011). ACCIÒ Research Program of Catalonia Government. PI ICRA (Damia Barceló) Budget: 50.000

Patent: Pigments. Patent Number: WO/2001/088044. Date: 22/11/2001. Authors: Anselmann, Ralf; Albrecht, Thomas; Rodriguez-Mozaz, Sara. Merck KGaA. Priority Country: USA