

Stéphane PESCE - 46 years old

Senior Scientist/Director of Research in Microbial Ecotoxicology

Deputy Director of the INRAE RiverLy Research Unit - <https://www.riverly.inrae.fr/>

Group leader "Aquatic Microbial Ecotoxicology" (EMA) - <https://ema.lyon-grenoble.hub.inrae.fr>

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Education

Ongoing Practical School of Research Management (EPMRA), INRAE/Cirad/AgroParisTech
2013 Habilitation to Supervise Research (HDR) - University Blaise Pascal, Clermont-Ferrand
2006 PhD in Microbial Ecology - University Blaise Pascal, Clermont-Ferrand

International Mobility

2017 Visiting Researcher, Ecotox Centre EPFL, Lausanne, Switzerland (7 Months)

Scientific Output

<https://orcid.org/0000-0001-7242-9461>

Google Scholar: 2,893 citations, H-index 32; Scopus: 1,726 citations, H-index 25
69 international publications, 5 book chapters, 9 national papers, 16 scientific reports
Editor of a scientific book (QUAE editions, French and English versions)

Leadership, Representation & Expertise (selection)

2020-23 **National co-coordinator** of the expertise on the effects of pesticides on biodiversity and ecosystems requested by three French Ministries (Agriculture, Ecological Transition, and Research)
2022- **Vice-President of the evertéa Scientific Foundation** for research in Health and Environment
2013- **Co-founder and co-leader of the international network on microbial ecotoxicology**
>350 members from 48 countries (Ecotoxicomic; <https://ecotoxicomic.org/>)
2024- **Member, Scientific Council of CIPEL** (International Commission for the Protection of Lake Geneva Waters)
2018- Board and council member of ~10 local, regional, and national scientific and socio-economic organizations
2015-20 **Member of the Scientific Committee of the Doctorate School Ecology-Evolution-Microbiology-Modelling.**
University of Lyon, France

Coordination of Major Projects (selection)

2024-28 **MSCA-Doctoral Networks PHARM-ERA:** Improving monitoring and environmental risk assessment of pharmaceuticals, antimicrobial resistance and pathogens from terrestrial to aquatic environment. Funding: Horizon-Europe (2658 k€)
2023-27 **DIAGNO-PICT:** *Potential of PICT approaches, combined with metabarcoding (microbial DNA) and chemical fingerprinting, as biomonitoring and diagnostic tools of chemical pressure in polluted hydrosystems.* Funding: French Office for Biodiversity - OFB (590 k€)
2023-27 **PHARM-ONE-HEALTH:** *Exposure and adaptation of microbial communities to pharmaceutical substances and microbiological agents in aquatic environments: Implications for the development and dissemination of antibiotic resistance determinants and pathogens.* Funding: French Agency for Food, Environmental and Occupational Health & Safety – ANSES (200 k€)

Supervision & Teaching

Supervision of 6 PhD students, 5 post-docs, 14 MSc students
Since 2015: Master-level teaching in Ecotoxicology (15–25h/year), University of Savoie Mont-Blanc
Earlier teaching experience at BSc level and in private education (cellular & molecular biology)

Evaluation & Reviewing

Member of 3 HDR and 13 PhD juries (incl. 2 presidencies)
Reviewer for >80 international journal articles and ~20 national and international research projects (DFG, ANR, etc.)

Organization of International Scientific Events (selection)

2025 International Research School *Functional Experimental Approaches in Microbial Ecotoxicology* (EcotoxicoMic, Bordeaux, France)
2025 International Research School *Theory and Practice in Environmental Chemistry, Ecotoxicology and Risk Assessment* (Pharm-ERA, Mosta, Malta)
2017/2020 International EcotoxicoMic Conferences (1st and 2nd editions; 170 and 131 participants, respectively)

Science Communication & Outreach

Participation in science festivals, public conferences, media interventions, Franco-Swiss stakeholder seminars
Hearings at the French National Assembly (2023)

Selected publications

1. ROGUE H, MIÈGE C, [...] & PESCE S, 2025. Sulfamethazine biodegradation in sediments is driven by chronic exposure concentrations. *Ecotoxicol Environ Saf.* 303:118785. doi: 10.1016/j.ecoenv.2025.118785
2. PESCE S et al., 2025. The use of copper as plant protection product contributes to environmental contamination and resulting impacts on terrestrial and aquatic biodiversity and ecosystem functions. *Environ. Sci. Pollut. Res.* doi: 10.1007/s11356-024-32145-z
3. PESCE S et al., 2025. Recommendations to reduce the streetlight effect and gray areas limiting the knowledge of the effects of plant protection products on biodiversity. *Environ. Sci. Pollut. Res.* doi: 10.1007/s11356-023-31310-0
4. PESCE S et al., 2025. Linking ecotoxicological effects on biodiversity and ecosystem functions to impairment of ecosystem services is a challenge: [...] *Environ. Sci. Pollut. Res.* doi: 10.1007/s11356-023-29128-x
5. PESCE S et al., 2025. Main conclusions and perspectives from the collective scientific assessment of the effects of plant protection products on biodiversity and ecosystem services along the land–sea continuum in France and French overseas territories. *Environ. Sci. Pollut. Res.* doi: 10.1007/s11356-023-26952-z