

Stéphane PESCE - 42 years old

Senior Scientist/Director of Research in Microbial Ecotoxicology

Leader of the Group "Aquatic Microbial Ecotoxicology" (EMA) - <https://ema.inrae.fr/>

INRAE - RiverLy Research Unit – Villeurbanne, FRANCE

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Degrees/Education

- 2013 HDR (French habilitation for research direction) in Microbial Ecotoxicology
2006 PhD in Microbial Ecology - Univ. Clermont Auvergne (France)

Research positions

- 2019- Director of Research - INRAE, Villeurbanne France
2017) Guest Researcher - Ecotox Centre, EPFL, Lausanne, Switzerland (7 Months)
2009-18 Normal Class Researcher – IRSTEA, Villeurbanne France
2007-09 Post-doctoral position – IRSTEA, Villeurbanne France

Research group and topic

Aquatic microbial ecotoxicology:

Study of structural and functional responses and adaptation of benthic microbial communities (periphyton & sediment biofilms) to organic and inorganic toxicants in the context of global change

Composition of the EMA research group (Jan 2022):

Permanent staff (5): 2 researchers, 1 engineer, 1 assistant engineer, 1 technician.

Non-Permanent staff (6): 1 post-doc, 1 PhD student, 2 MSc internships

Scientific expertise and responsibilities (selected examples)

- 2020-22 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)
- 2016-20 Editorial Activity: Guest Editor of Special issues related to Microbial Ecotoxicology in *Front. Microbiol.*, *Front. Environ. Sci.* and *Environ. Sci. Pollut. Res.*
- 2013- Co-creator and co-responsible of the international network on microbial ecotoxicology 210 members from 41 countries (Ecotoxicomic; <https://ecotoxicomic.org/>)
- 2010- Member of HDR (2) and PhD (7) Thesis committees and 7 PhD-Thesis steering committees
- 2015- Member of the Directory Board of the Rovaltain Scientific Foundation for research in Health and Environment (<http://www.fcsrovaltain.org/>).
- 2015-20 Member of the Scientific Committee of the Doctorate School « Ecology-Evolution-Microbiology-Modelling ». University of Lyon, France
- 2007- Peer-review of >65 scientific articles for >20 international journals (*Aquat. Toxicol.*, *Chemosphere*, *Ecol. Indic.*, *Environ. Sci. Pollut. Res.*, *Environ. Pollut.*, *Ecotoxicology*, *Environ. Sci. Technol.*, *Frontiers Microbiol.*, *Water Research*, etc...)

Participation in multi-partner research programmes (current and recent projects)

- 2021-23 PHARMATOX: Temporal and spatial variation in pharmaceutical concentrations in urban and agricultural stream: resulting effects on periphytic and sediment microbial communities. Funding: RM&C Water Agency; **Project Leader**
- 2018-22 ANTIBIOTOX: Fate of antibiotics and associated resistance genes in agroecosystems: ecotoxicological risk for functional microbial communities of receiving river systems. Funding: French Research Agency ANR ; **Project Partner (responsible for workpackage 3)**
- 2018-21 ANTIBIOTOOLS: A set of tools to monitor antibiotic and antibiotic resistances in aquatic ecosystems. Funding: French Agency for Food, Environmental and Occupational Health & Safety (ANSES); **Project Partner (coord.: C. Bonnineau – INRAE EMA Research Group)**
- 2018-20 PERSORESTO: Efficiency and social perception of the restoration of the Tillet River and of the water quality of the Bourget Lake. Funding: RM&C Water Agency; **Project Leader**
- 2017-19 COMMUSED: Assessment of benthic microbial and invertebrate communities to evaluate the ecological quality of polluted rivers. Funding: RM&C Water Agency; **Project Leader**
- 2017-18 SANO-FILMS: Molecular and functional study of microbial biofilms to assess ecotoxicological effects of pharmaceutical industry effluents. Funding: SANOFI; **Project Leader**
- 2017-18 SEDIPICT: Validation and application of Pollution Induced Community Tolerance (PICT) measurement to evaluate in situ effects of pollutants on sediment microbial communities. Funding: French Agency for Biodiversity (AFB) ; **Project Leader**
- 2016-18 COOPERA: French-Swiss project to develop ecotoxicological tools at community level to assess the ecological quality of contaminated sediments. Funding: French Auvergne-Rhône-Alpes Region ; **Project Leader**
- 2016-19 IMPACT-CE: Development and transfer of chemical and biological tools to monitor the impact of agricultural practices on lotic ecosystems. Funding: French Agency for Biodiversity (AFB) and the French Ministry of the Environment– ECOPHTYO Plan ; **Project Partner**

Scientific valorization

Peer-reviewed international publications : 57 published articles - 3 book chapters

Scopus H index (06/03/2022; without self-citations) = 19 (1089 citations, 138 co-authors)

National publications : 4 published articles - 2 book chapters

Conference and workshop contributions

- 12 guest conferences/keynotes in international and national seminars and congresses
30 conferences and 32 posters in international seminar/congresses/workshop
31 conferences and 5 posters in national congresses/workshop