

BAZIRE Alexis

alexis.bazire@univ-ubs.fr

Section CNU 64

Professor at UBS since 2023

Education, work experience and current position

2005 : Ph. D. at UBS on rhamnolipid production and regulation in *P. aeruginosa*, under the supervision of Prs Dufour and Haras.

2005-2006 : Postdoctoral position at UBS. Role of sigma factor AlgU in *P. aeruginosa* biofilm formation. ATER fellowship.

2006-2007 : Postdoctoral position at Denmark Technical University (DTU). Plasmid transfer in biofilm of *P. putida*. European Marie Curie excellence fellowship

2007-2023: Associate professor at UBS

2015 : Habilitated to supervise Ph. D. students. Contribution to understand biofilm formation.

2026: Professor at UBS

11 supervision of Ph. D. students (10 defended and 1 in progress) and 10 Master students.

6 post-doctoral supervisions.

Summary of research activities and skills

All my researches focus on bacterial biofilm formation. We investigate how bacteria organized each other at genetic and physiologic levels. We use molecular (transcriptionnal fusion, qPCR, mutagenesis, omics...) and microscopy (Confocal Laser Scanning, Scanning electronical...) tools. We also research new anti-biofilm molecules from marine environment and try to elucidate their mechanisms of action, what are the targets? Quorum sensing, mobility, exopolysaccharides secretion...

Summary of teaching activities

Teaching at all level of University diploma in molecular and cellular biology, microbiology and biotechnology.

Pedagogic and administrative duties

In charge of cycle of preparation of medical school (UBS) and medicine cursus of UBS with UBO and Rennes I faculties.

Vice-president of health formation from 2024 to 2025

Director of Laboratory of Marines biotechnology and chemistry (LBCM) since 2025.

Associate director of LBCM 2020-2025

56 articles in international journals, 5 examples:

1. Osmond, T., Bourigault, Y., Dufour, A., Rodrigues, S., and Bazire A. 2026. **Global transcriptomic profiling of *Pseudomonas aeruginosa* PAO1 biofilm grown in flow cell system.** The microbe, 12 (IF 3.9)

2. Caudal F., Roullier C., Rodrigues S., Dufour A., Artigaud S., Le Blay G., Bazire A., and Petek S. 2024. **Anti-biofilm Extracts and Molecules from the Marine Environment.** Marine Drugs. 22 (7):313. (IF 5.7)

3. Petit C., Caudal F., Taupin L., Dufour A., Le KER C., Giudicelli F., Rodrigues S., and Bazire A. 2024. **Antibiofilm and antibacterial activities of the marine probiotic *Bacillus subtilis* C3 against the aquaculture-relevant pathogen *Vibrio harveyi*.** Probiotics and antimicrobial proteins. 10.1007/s12602-024-10229-z (IF 5.3).

4. Rodrigues S., Paillard C., Le Pennec G., Dufour A., Bazire A. ***Vibrio tapetis*, the Causative Agent of Brown Ring Disease, Forms Biofilms with Spherical Components.** 2015. Frontiers in Microbiology 6, 1384 (IF 4)

5. Rodrigues S., Paillard C., Van Dillen S., Tahrioui A., Berjeaud J. M., Dufour A. and Bazire A. **Relation between biofilm and virulence in *Vibrio tapetis*, a transcriptomic study.** 2018. Pathogens, 7(4). (IF: 3.4)