

# BAZIRE Alexis

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Section CNU 64

## Education, work experience and current position

Lecturer and researcher at Université de Bretagne Sud (UBS) since 2007.

**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

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

**8 supervision of Ph. D. students** (5 defended and 3 in progress) and 7 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 (transcriptional fusion, qPCR, mutagenesis, genomic...) and microscopy (Confocal Laser Scanning, Scanning electronic...) 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 L3 Biology and Biotechnologies (UBS) and of cycle of preparation of medical school (UBS)  
Member of science University council of UBS and of science council of European University Institute of the Sea (IUEM)

Member of the national council of CNU64

**28 articles** in international journals, 5 examples:

1. Le Bloa S., Durand L., Cueff- Gauchard V., Le Bars J., Taupin L., Bazire A., Cambon Bonavita M.A. 2017. **Highlighting of quorum sensing lux genes and their expression in the hydrothermal vent shrimp *Rimicaris exoculata* ectosymbiotic community. Possible use as biogeographic markers.** PLoS ONE, Public Library of Science, 12 (3) (IF= 3.54)
2. 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)
3. Rosay T., Bazire A., Diaz S., Clamens T., Blier A.S., Mijouin L., Hoffmann B., Sergent J.A., Bouffartigues E., Boireau W., Vieillard J., Hulen C., Dufour A., Harmer N.J., Feuilloley M.G.J., Lesouhaitier O. 2015. ***Pseudomonas aeruginosa* expresses a functional human natriuretic peptide receptor ortholog: involvement in biofilm formation.** mBio 6, e01033-15 (IF 6.786)
4. Doghri I., Rodrigues S., Bazire A., Dufour A., Akbar D., et al. 2015. **Marine bacteria from the French Atlantic coast displaying high forming-biofilm abilities and different biofilm 3D architectures.** BMC Microbiology, 15, 231 (IF 3.1)
5. Bazire A. and Dufour A. 2014. **The *Pseudomonas aeruginosa* rhlG and rhlAB genes are inversely regulated and RhlG is not required for rhamnolipid synthesis.** BMC Microbiology 14,160 (IF 3.10).