RODRIGUES Sophie

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Section CNU 64/65

Education, work experience and current position

Lecturer and researcher at Université de Bretagne Sud (UBS) since 2020.

**2014:** Ph. D. at UBS (LBCM). Characterization and control of biofilms formed by *Vibrio tapetis*, the pathogen of Manila clam *Ruditapes philippinarum*, under the supervision of Dr Bazire A. and Pr Dufour A.

**2014-2015**: Researcher and Teacher at UBS (LBCM) “Transcriptomic study of biofilms formed by the clam pathogen *V. tapetis*”. ATER fellowship.

**2016-2017**: Postdoctoral position at UBS (LBCM). AGROFILM project “Study of biofilms formed by *Rhizobium rhizogenes* in tomato production greenhouses and development of control strategies

**2017-2018:** Postdoctoral position at Université de Rouen (LMSM). AGROFILM project “Characterization of quorum quenching activity displayed by an environmental bacterial strain dedicated to biological control”

**2018-2019:** Postdoctoral position at Université de Rouen (LMSM). “Effect of epinephrine on Pseudomonas aeruginosa virulence” FEDER fellowship.

Summary of research activities and skills

* Bacterial biofilm formation
* Anti-biofilm molecules and strategies
* Host/Pathogen interactions

Cellular biology, cytotoxicity – *in vivo* models

* Microscopy (CLSM, SEM, TEM)
* Molecular biology (mutagenesis, genomic, transcriptomic…)

Summary of teaching activities

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

Pedagogic and administrative duties

11 articles in international journals, 5 examples:

1. **Rodrigues S**, Paillard C, Van Dillen S, Tahrioui A, Berjeaud JM, Dufour A, Bazire A. 2018. **Relation between biofilm and virulence in *Vibrio tapetis*, a transcriptomic study.** *Pathogens* 7, 92. doi:10.3390/pathogens7040092. **FI2018: 3,405**
2. **Rodrigues S**, Paillard C, Le Pennec G, Dufour A, Bazire A. 2015. ***Vibrio tapetis*, the causative agent of Brown Ring Disease, forms biofilms with spherical components.** *Frontiers Microbiology* **6:**1384. **FI2018: 4,235**
3. **Rodrigues S**, Paillard C, Dufour A, Bazire A. 2015. **Antibiofilm activity of the marine bacterium *Pseudoalteromonas* sp. 3J6 against *Vibrio tapetis*, the causative agent of Brown Ring Disease.** *Probiotics and Antimicrobial Proteins* **7:**45–51. **FI2019: 3,533**
4. Cambronel M, Tortuel D, Biaggini K, Maillot O, Taupin L, Réhel K, Rincé I, Muller C, Hardouin J, Feuilloley M, **Rodrigues S**, Connil N. **Epinephrine affects motility, and increases adhesion, biofilm and virulence of *Pseudomonas aeruginosa* H103.** *Scientific Reports* 27;9(1):20203. doi: 10.1038/s41598-019-56666-7. **FI2018: 4,011**
5. Tahrioui A, Duchesne R, Bouffartigues E, **Rodrigues S**, Maillot O, Tortuel D, Hardouin J, Taupin L, Groleau MC, Dufour A, Déziel E, Brenner-Weiss G, Feuilloley M, Orange N, Lesouhaitier O, Cornelis P, Chevalier S. 2019. **Extracellular DNA release, quorum sensing, and PrrF1/F2 small RNAs are key players in *Pseudomonas aeruginosa* tobramycin-enhanced biofilm formation.** *NPJ Biofilms Microbiomes*. 5:15. doi: 10.1038/s41522-019-0088-3.**FI2019: 7,067**