

## MATHIEU LAURENCE (51 YEARS OLD)

### **Degrees:**

HDR Ecole Pratique des Hautes Etudes (EPHE) (2008),  
PhD Université Henri Poincaré de Nancy (1992).

### **Professionnal experience:**

Since 2000 Associate professor in Environmental Microbiology, at EPHE in the Laboratoire Chimie Physique et Microbiologie pour l'Environnement, UMR 7564 CNRS-Lorraine Université.

Direction and co-direction of 3 post-docs, 7 theses, 25 DEA/Master on topics on the occurrence, survival and dynamic of bacterial populations, including those of sanitary interest, in both drinking and river water systems, on aggregated systems (sediments, suspended matter, biofilms) according to environmental stressors (nutrient status, oxidant and disinfection practices, surface properties of the material for biofilm dynamics, etc.)

### **Expertise and missions:**

Member of the scientific committee of the SVT section at EPHE.

Member of the scientific council of EPHE.

Expert at the French Agency for Food, Environmental and Occupational Health & Safety in the Specialists Committees named "Water" and "Water and Biological Agent" (since 2007), in the Working Group "Legionellae" (2003-2009) in the Working Group "Re-use of treated wastewater" (2009-2013).

Reviewing: Water Research, International Journal of Food Microbiology, Journal of Applied Microbiology, Aerobiologia, Environmental Science & Technology, Plos One.

### **Research thematiques:**

Occurrence and survival of microorganisms (bacteria and amoeba) in biofilms and water exposed to environmental stress

Dynamic of bacterial populations according to environmental factors

Mechanisms governing both the adhesion of microorganisms on surfaces and the cohesion of the aggregates.

**Publications (h-index: 15):** 34 international publications, 1 book chapter, 7 invited conferences, 36 international communications and 50 national communications.

### **Mains publications (last 5 years)**

- Mathieu L., Bertrand I., Abe Y., Angel E., Block J.C., Skali-Lami S., Francius G., 2014, Drinking water biofilm cohesiveness changes under chlorination or hydrodynamic stress, *Water Research*, 55, 175-184.
- Goudot, S., Herbelin, P., Mathieu, L., Soreau, S., Banas, S., & Jorand, F. P. A. 2014, Biocidal efficacy of monochloramine against planktonic and biofilm-associated *Naegleria fowleri* cells. *Journal of Applied Microbiology*, 116(4), 1055-1065.
- Mathieu L., Bouteleux C., Fass S. E. Angel E. and Block J.C. (2009). Reversible shift in the  $\alpha$ -,  $\beta$ - and  $\gamma$ -proteobacteria populations of drinking water biofilms during discontinuous chlorination. *Water Research* ;43 :3375-3386.
- Goudot S., Herbelin P., Mathieu L., Soreau S., Banas S., Jorand F., 2012, Growth dynamic of *Naegleria fowleri* in a microbial freshwater biofilm, *Water Research*, 46, 3958-3966.
- Gosselin, F., Duval, J.F.L., Simonet, J., Ginevra, C., Gaboriaud, F., Jarraud, S., Mathieu, L. (2011). Impact of the virulence-associated MAb3/1 epitope on the physicochemical surface properties of *Legionella pneumophila* sg1: An issue to explain infection potential? *Colloids and Surfaces B: Biointerfaces* ;82:283-290.