



SHORT TERM MISSIONS

Short Term Missions (STMs) are small travel grants with the aim of:

- Sharing scientific expertise, methodologies, equipment and facilities to harmonise the existing approaches and methodologies within the large
- OHEJP European network Driving the research forward in a collaborative and non-duplicative fashion to strengthen both the scientific capacity within the OHEJP
- Contributing to the future prevention, preparedness, detection and response of the EU to foodborne and other emerging threats across human-animal-environmental sectors.

Genotypic characterisation of antimicrobial susceptibility and isolation of *Aeromonas* and *Vibrio* phages from water samples

Theme: One Health, Skills Development Missions
 Home Institute: [ANSES](#), France
 Mission Hosting Institute: [BfR](#), Germany
 Duration of Mission: 4 weeks

“This mission was a great opportunity to discuss the dissemination of antibiotic resistance in the aquatic environment in connection with aquaculture activities. In addition to the improvement of the technical skills of both teams, the diversity of our fields of study (water, fish farming vs food) opened up perspectives for new collaborations, using a One Health approach.”

Sandrine Baron and
 Laetitia Le Devendec
 ANSES, France

The objective of the mission was to share technical knowledge on the detection and characterisation of *Aeromonas* and *Vibrio* genus and to establish a collaboration between the institutes, to study of the dissemination of antibiotic resistance in aquatic environments.

During this mission, Sandrine and Laetitia were trained on phages' cultivation, enumeration and conservation methods. They now have in hands the detailed protocols, as well as phages and competent bacteria cultures, provided by the BfR team. They will be able to put the methods into practice in Anses. Sandrine and Laetitia travelled to BfR with culture media for the detection of *Aeromonas* sp., from water and fish samples. Water samples have been collected nearby the BfR laboratory and the German team performed the entire handling: filtration, cultivation and presumptive identification. The partner teams established common protocols for the study of the *Aeromonas* and *Vibrio* genera and initiated the sharing of the Maldi-Tof databases, for the improvement of the species identification of bacteria from the *Aeromonas* and *Vibrio* genera. The two institutes are also now both involved in a research group, which aims to improve the methodology of antimicrobial susceptibility testing in aquatic bacteria and determine Epidemiological cut off values (Ecoff). Meetings and video conferences with French and Canadian researchers took place, to discuss research ideas. At the end of this STM, two research project proposals were elaborated.

This short-term mission strengthened the emerging collaboration between the two teams from the One Health EJP consortium. It has also led to a reflection on the use of phages to improve and reduce the use of antibiotics in aquaculture, a farming sector from which a One Health approach is absolutely needed.

One Health EJP has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773830.



@OneHealthEJP



ONE Health EJP

#OneHealthEJP #OneHealth #StrongerTogether