**Bacteriophage – based prophylactic treatment of rainbow trout to control *Flavobacterium psychrophilum* infections**

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Due to the rise of antibiotic resistance and the unavailability of a commercial vaccine, alternative environmentally sustainable methods able to control the spread of *Flavobacterium psychrophilum*, a worldwide-known pathogen in salmonid aquaculture, are of high ecological and economic interest. Bacteriophages, host-specific viruses of bacteria unable to replicate in eukaryotes, represent a potential alternative1,2. In this study, we investigate the efficiency of a bacteriophage-based prophylactic treatment of rainbow trout (*Oncorhynchus mykiss*), where phages are orally administrated through the feed. Rainbow trout are fed with phage-coated feed for 15 days before the exposure with *F. psychrophilum*. Controls fed with conventional feed as well as controls not infected with the bacterium are included. The effects of the prophylactic treatment on fish survival, growth and welfare are quantified and samples from several fish organs are taken over time in order to assess the spread and density of phages. The results will be presented and the perspectives outlined.

References

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