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## **Environmental impacts on the Human microbiota**

### **Faculty:**

Assoc Professor [BOUCHER Yann Felix](#)

Email: [ephyb@nus.edu.sg](mailto:ephyb@nus.edu.sg)

### **Project Description:**

Many aspects of infectious disease transmission are not well understood, especially for those which have environmental reservoirs. Previous research on the dispersal and ecology of the etiological agent of cholera has taught us a number of lessons. Our collective failure at properly understanding the dynamics of numerous gastrointestinal illnesses because of two key reasons: 1) humans can be asymptomatic reservoirs and 2) transmission from the environment or from animals is very poorly understood. To elucidate these mysteries, we are using a hybrid approach embracing both high-throughput culturing of bacteria and metagenomics sequencing. The goal is to obtain genome sequence data of such quality and scope that molecular epidemiology methods can be used to trace links between the environment and the human microbiome.