



**Universität
Zürich** ^{UZH}

Master thesis project

Adaptation of bacterial pathogens to human diets

The Neolithic revolution and industrialization have profoundly altered human diets, leading to changes in the taxonomic and genetic diversity of our gut microbiome. By analysing large genomic data collections, we have identified adaptations in bacterial genomes that likely reflect population-specific dietary influences. This project aims to experimentally validate these findings through molecular, microbiological, and epidemiological approaches. As part of this research, you will gain hands-on experience with diverse techniques while contributing to impactful research.

Main Tasks

- Genetic engineering of bacterial strains involving cloning and mutant generation
- Growth competition assays
- Screening for bacterial pathogens and genes in niche-associated samples
- Optional: Whole-genome sequencing and computational analysis of microbial genomes

Contact

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