

Aquatic microbiology, Biofilm centre

Group of Prof. Meckenstock

Master thesis

Characterization of cable bacteria

Cable bacteria of the family *Desulfobulbaceae* can conduct electrons over centimeter distances between spatially separated redox zones. In this master thesis, the student will cultivate and characterize a highly enriched culture of cable bacteria. The student will work with cable bacteria in anaerobic batch cultures as well as in biogeochemical gradient systems. The culture will be characterized by wet chemical analyses and advanced microscopy techniques such as fluorescence in situ hybridization (FISH) and atomic force microscopy (AFM). In addition, the culture will be analyzed by molecular methods such as amplicon and metagenome sequencing.

We are looking for a master student with a background in microbiology who is highly interested in environmental microbiology and microbial biogeochemical cycles.

Interested candidates should send a short letter of motivation and a CV to Dr. Hubert Müller (hubert.mueller@uni-due.de).