

**Invitation to a Guest Lecture  
at the joint colloquium of the Institute of Biology and Environmental Sciences and the  
Department of Neuroscience**

**Module bio890: Current topics in biology**

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**Microbiome Manipulation for Coral Climate Resilience**

Coral reefs are in a dire crisis due to the rapidly unfolding consequences of climate change. The long-lived reef-building corals, keystone species of tropical reefs, will likely not be able to adapt to the 'new normal' of ocean warming, unpredictable weather patterns, and human-made disturbances. Instant action and interventions that act on short time scales are urgently needed.

Manipulative microbiome-based strategies are promising here, as they target the fast-evolving microbiomes of organisms (e.g., bacterial communities). These manipulative approaches are grounded on the premise that a beneficial bacterial community can enhance health and most importantly stress resistance of organisms through host-microbe interactions on metabolic level or through pathogen control. Microbiome-based applications have proven effective in other contexts, most prominently as human medical treatments or for crop enhancement in agriculture.

In this talk you will learn about the metaorganism concept, microbiome-based interventions (a.k.a., microbiome manipulation), and how these ideas are being implemented in research that aims to help enhance stress resistance and resilience of reef-building corals.

**16.11.2021, 4 pm (s.t.)**

**virtual room: <https://meeting.uol.de/b/gab-t5m-nmo-kvi>**

Host: Prof. Dr. Gabriele Gerlach (Animal Biodiversity and Evolutionary Biology), IBU

Members of all institutes are cordially invited to join the lecture.