

Einladung zum Vortrag
im Rahmen des gemeinsamen Kolloquiums des Instituts für Biologie und
Umweltwissenschaften und des Departments für Neurowissenschaften

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Genotype-by-environment interactions and their role in shaping variation of fitness-related traits

Our understanding of the genetic basis of complex traits, including fitness-related traits, is mostly based on mapping studies that identify genotype-to-phenotype associations. Due to the challenges in performing high-resolution mapping experiments, such genotype-phenotype map is usually explored in just one environment. However, evolutionary theory as well as empirical work suggest that such map is often environmentally-dependent, and that such genotype-by-environment (GxE) interactions are key to understanding phenotypic variation. Here, I will explore how large-scale genomics experiments can help us unravel the role that GxE interactions play in shaping phenotypic variation in outbred populations of *Drosophila melanogaster*. In particular, I will focus on the genetic basis of lifespan and how different dietary conditions shape such genetic architecture, shedding light on the evolutionary history of alleles that reduce lifespan in stressful diets.

13.07.2021, 16 Uhr s.t.

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

Gastgebend: Prof. Dr. Gabriele Gerlach (AG Biodiversität und Evolution der Tiere), IBU

Gäste aller Institute sind herzlich willkommen