Role of chemical mediators in aquatic interactionas across the prokaryote eukaryote boundary.

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Details



Abstract

There is worldwide growing interest in the occurrence and diversity of metabolites used as chemical mediators in cross-kingdom interactions within aquatic systems. Bacteria produce metabolites to protect and influence the growth and life cycle of their eukaryotic hosts. In turn, the host provides a nutrient-enriched environment for the bacteria. Here, we discuss the role of waterborne chemical mediators that are responsible for such interactions in aquatic multi-partner systems, including algae or invertebrates and their associated bacteria. In particular, this review highlights recent advances in the chemical ecology of aquatic systems that support the overall ecological significance of signaling molecules across the prokaryote-eukaryote boundary (cross-kingdom interactions) for growth, development and morphogenesis of the host. We emphasize the value of establishing well-characterized model systems that provide the basis for the development of ecological principles that represent the natural lifestyle and dynamics of aquatic microbial

communities and enable a better understanding of the consequences of environmental change and the most effective means of managing community interactions.

Beteiligte Forschungseinheiten

Chemische Biologie der Mikroben-Wirt Interaktionen Christine Beemelmanns Mehr erfahren

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