Special Issue

Odi Et Amo: Diversity of Insect–Microbe Interactions, from Antagonism to Mutualism, and Their Manipulation for Pest Control

Message from the Guest Editors

Microbes associated with insects are mostly regarded as antagonists or competitors to be exploited in biocontrol. Indeed, entomopathogens diversified a plethora of sophisticated strategies to counter insect immune and behavioral defenses, through a long coevolutionary arms race. Nevertheless, they can also influence insects' response to abiotic stressors, determining their sensitivity toward toxicants, thermal tolerance and drought resistance. As such, microbial symbionts can interact by either expanding or constraining their hosts' adaptations to novel habitats and response to environmental fluctuations. A thorough knowledge of these interactions is fundamental for a better understanding of their impact on insect populations, also in the aim of disrupting them to contrast pests. This Special Issue has been launched to set up a collection of contributions examining the outcome of ecological and molecular interactions between insects and their microbial associates, resulting from both observations concerning natural contexts and investigations on model systems carried out in the laboratory.

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Deadline for manuscript submissions

closed (31 December 2023)

Microorganisms

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mdpi.com/si/147444

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"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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