Special Issue

Research on Plant—Bacteria Interactions

Message from the Guest Editor

The interaction between plants and beneficial bacteria is a fascinating topic about how bacteria can help plants grow and develop more efficiently. In general, plants can recruit these bacteria by producing organic compounds, such as amino acids and sugars. The beneficial bacteria can then grow in the rhizosphere, the environment surrounding plant roots, and begin to interact with the roots. Some beneficial bacteria can be recognized by specific receptors located on the surface of plant roots. When beneficial bacteria bind to these receptors, the plant can produce signals that stimulate the bacteria to grow in the rhizosphere. Some plants can form symbioses with beneficial bacteria, meaning they work closely together for mutual benefit. This Special Issue focuses on original papers dealing with (i) the identification of new beneficial bacterial partners for plants, (ii) the chemical and molecular communication between the partners during the different stages of the interaction, (iii) the factors that influence this communication, and (iv) the effects of these bacteria on the other interactions that the plant may have with its environment.

Guest Editor

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Message from the Editor-in-Chief

"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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