

Special Issue

Phytomicrobiome Research for Disease and Pathogen Management

Message from the Guest Editors

Plant health and productivity require a holistic view and an in-depth understanding of the diversity and functions of microorganisms associated with soil and plants, also known as phytomicrobiome², which include beneficial members that provide critical ecosystem services and pathogens threatening food safety and security. High-throughput omics tools, ranging from metabarcoding, metagenomics, metatranscriptomics, metaproteomics, to metabolomics, allow identify bioindicators (microorganisms, genes, and/or molecules) associated with ecosystem functioning, reveal synergisms and antagonisms among community members across kingdoms, and assess the impact of environmental (e.g. climate) and anthropological factors (e.g. agronomic practices). This special issue looks forward to receiving contributions about 1) phytomicrobiomes, their functions and dynamics in agroecosystems or forests 2) the impact of environmental and anthropogenic factors 3) interactions among community members and, notably, towards phytopathogen communities (e.g. viruses, bacteria, fungi, oomycetes, protozoa, nematodes) or pests.

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Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, and conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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