Special Issue

Microbial Diversity as a Driver of Plant Growth and Soil Health

Message from the Guest Editor

Soil plays a vital role in sustaining life on Earth, providing a range of essential ecosystem services. Particularly, the soil microbiome, composed of a diversity of microorganisms, plays a crucial role in promoting soil fertility, producing plant biomass and preserving plant health. There are biological strategies, which, when applied appropriately, can revitalize life in diverse ecosystems, along with their complex interactions between organisms. Furthermore, in recent years, we have witnessed a significant increase in the use of "omics" approaches that allow us to assess microbial phylogenetic diversity and soil functionality. The application of these technologies has contributed to the understanding of microbial communities that play a central role in biological systems, identifying functional groups essential for the health of plants, soil and water. This approach strengthens our ability to maintain healthy forest ecosystems, mitigate climate change, increase agricultural productivity, ensure food quality, promote food security and, ultimately, protect the health of our planet.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

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