BioMed Research International

Special Issue on

Exploring and Exploiting the 'Underexplored' Rhizosphere Microbiome

CALL FOR PAPERS

Soils sustain an immense diversity of microbes, which, to a large extent, remains underexplored. Their diversity and activities are influenced by human activities, environmental stress, and changing global climate. In soil ecosystems, microbiomes play a significant role maintaining soil quality and modulating global biogeochemical cycles. However, despite their potentially paramount importance for plants, these extremely complex microbial communities and their interactions have remained largely uncharacterized.

Understanding the complex nature of plant-microbe interactions can potentially offer new vistas to enhance plant productivity. An understanding of microbial community dynamics, their interactions, and their responses to global climate change as well as hazardous soil conditions is important. With recent advances in genomics and next generation sequencing technologies, microbial community analyses have initiated a new era of microbial ecology. Molecular approaches such as genetic fingerprinting, metagenomics, metaproteomics, metatranscriptomics, and proteogenomics are vital for discovering and characterizing the vast microbial diversity and understanding their interactions with biotic and abiotic factors in the rhizosphere.

Here we invite researchers to submit original research articles as well as review articles in cutting edge areas of rhizosphere microbial community analysis and plant-microbe interactions.

Potential topics include, but are not limited to:

- Microbial ecology of the rhizosphere
- Rhizosphere microbiome in extreme environments
- Disease suppressive soils
- Plant growth promoting rhizobacteria
- Plant-microbial interactions
- Quorum sensing and signaling
- Exploring soil-microbial genome
- Tools and methods in study of soil/rhizosphere microbiome
- Bioprospecting of soil microbes
- Climate change effects on soil/rhizosphere microbes

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/biotechnology/eeu/.

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Friday, 1 July 2016

First Round of Reviews
Friday, 23 September 2016

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