Special Issue

Comparative and Functional Genomics of Toxigenic Fungi

Message from the Guest Editors

Dear Colleagues, Fungi can produce a wide array of secondary metabolites (SMs), some of which have beneficial properties, while others can be harmful toxins that pose risks to human and animal health, as well as negatively impact agriculture and related industries. The advent of whole-genome sequencing has initiated a new phase in the study of fungal biological systems. This has been made possible by the significant increase in the catalogue of genome sequences of fungi and the development of new reference genomes.

Advancements in omics techniques have facilitated identification, characterization, variation, and comparative studies of fungi, providing new insights into the relationship between secretome and fungal lifestyles and helping to identify gene clusters for both known and previously undiscovered cryptic SMs. This Special Issue is focused on the recent advances in mycotoxin research, with an emphasis on the genetics and biology of fungal toxin production. The topics of interest will include comparative genomics and transcriptomics addressing genome-wide variations, pathogenicity mechanisms, secretome analysis, and the regulation of secondary metabolite gene clusters.

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Message from the Editor-in-Chief

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