Special Issue

Toxic Proteins from Mushrooms: From Defence Roles to Biotechnological Tools for the Future

Message from the Guest Editors

Mushrooms fruiting bodies have always symbolised the "yin and yang", being a source of poisons, and at same time a reservoir of bioactive compounds with health benefits.

Mushroom poisoning represents a frequent cause of fatal accidents. Mushroom poisoning can cause both benign symptoms of generalized gastrointestinal upset and potentially devastating manifestations, which include liver failure, kidney failure, and neurologic sequelae, depending on the species, kind of toxin, and amount ingested. Among poisonous compounds retrieved in mushrooms, there are specific toxic proteins/peptides that promote toxic effects acting on different targets.

These toxic polypeptides may become a possible tool for their use in the treatment of several human diseases or in plant biotechnology applications to attain resistance against pests/pathogens.

The SI aims to be a summary on toxic proteins/peptides from mushrooms and their potential applications in medicine and crop protection. A challenge for the future to turn this natural "poisons" in possible "magic bullets" with the potentiality to change the course of history on the plagues of society.

Guest Editors

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Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

Editor-in-Chief

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