



Chitin-Degrading Enzymes, Breaking Barriers in Life and Material Sciences

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Message from the Guest Editors

Dear Colleagues,

Chitinases belong to the large family of glycoside hydrolases that includes non-chitinolytic proteins and chitinolytic enzymes. The family members have been identified in prokaryotes, among the animal kingdom from yeasts to humans and also in plants and, importantly, cover a wide range of functions.

Since chitin is the second most abundant biopolymer in nature and provides the barrier-forming body wall of many pathogens, chitinases are extremely promising candidate genes as a target for pest control in crop science and food production. Furthermore, chitin-based materials possess antimicrobial, antioxidant, anticarcinogenic and anti-inflammatory properties, therefore contributing to an increasing number of applications in materials science, including biomedical and pharmaceutical applications. Therefore, the enzymatic activity of chitinases will support the production of future eco-friendly biomaterials.

This Special Issue aims to establish a comprehensive scientific overview of the state of the art in chitinases, their biological functions and translational usage in pest science, materials science and associated biomedicine. We look forward to your contributions.





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