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Advances in Microbial Polysaccharide Research: Bioactivity, Molecular Mechanisms and Food Applications

Guest Editor:

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Deadline for manuscript submissions:

31 December 2024

Message from the Guest Editor

Microbial polysaccharides (MPs) are biopolymers secreted by microorganisms such as bacteria fungi and algae during metabolic processes. Compared to polysaccharides derived from plants and animals, MPs have advantages such as a wide range of sources, high production efficiency, and less susceptibility to natural environmental influences. The most attractive feature of MPs is their diverse bioactivity such as antioxidative, immunomodulatory, anti-tumor and antibacterial activities, which have demonstrated enormous potential for applications in foods, cosmetics and biomedicine. These bioactivities are precisely regulated by their sophisticated molecular structure. However, the mechanisms underlying this precise regulation are not yet fully understood. Furthermore, MP synthesis processes involve a large number of genes. The key genes of MP synthesis need to be further explored, and the regulatory mechanism of MP synthesis has also not been elucidated.

The aim of this Special Issue is to publish both recent innovative research results and review papers on the advances in microbial polysaccharide research: bioactivity, molecular mechanisms and food applications.



mdpi.com/si/205581

Special Issue



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Message from the Editor-in-Chief

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