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Bridging Polysaccharides from Nature to Products: Fundamentals and Technology

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Deadline for manuscript submissions:

closed (18 December 2020)

Message from the Guest Editors

Polysaccharides are among the most abundant polymers in nature; they are found in plants and marine and terrestrial organisms. Common polysaccharides include cellulose, chitin, chitosan, starch, pectin, hyaluronic acid, carrageenan, and chondroitin sulfate alginate, Polysaccharides have general biocompatibility (nontoxicity) and biodegradability, which is why these macromolecules are widely used in pharmaceutical, biomedical, and biotechnological applications. They also form easily 3D cross-linked structures, allowing their applications in pharmaceutical and environmental sciences. They are also extensively used as gelling agents, thickeners, stabilizers, and emulsifiers in food products. The presence of functional groups along the polymer chains allows their easy chemical functionalization, thus extending the exploitation opportunities.

This Special Issue aims to highlight fundamental and applied aspects of advanced research on polysaccharides in different fields including, but not limited to, biomedical, biochemistry, food chemistry, drug delivery, environmental science, and biorefinery and paper industry.













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Message from the Editor-in-Chief

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