# **Special Issue**

# Translational Advances in Polysaccharide-Based Materials: Bridging Pharmacy, Biomedicine, and Engineering

## Message from the Guest Editors

This Special Issue aims to showcase cutting-edge research and applications of natural polysaccharides as key building blocks in the development of advanced materials for pharmaceutical, biomedical, and engineering purposes. Contributions will highlight the role of polysaccharides in designing bioactive coatings, smart hydrogels, drug delivery systems, 3D bioprinted constructs, and biocompatible sensors. Particular emphasis will be placed on translational approaches that connect fundamental discoveries with industrial and clinical implementation, including the development of materials for controlled drug release, regenerative medicine, cell and organ-on-a-chip models, and sustainable alternatives to animal testing. This Special Issue welcomes interdisciplinary studies integrating polysaccharide chemistry, materials science, pharmacology, tissue engineering, and microfluidic technologies. The overarching goal is to present innovative strategies that facilitate the translation of laboratory achievements into clinical and industrial applications, promoting the creation of safe, effective, and sustainable biomaterials for the next generation.

#### **Guest Editors**

Dr. Tina Mayer

- 1. The Institute of Biomedical Sciences, Faculty of Medicine, University of Maribor, Taborska ulica 8, 2000 Maribor, Slovenia
- 2. The Department of Pharmacology, Faculty of Medicine, University of Maribor, Taborska ulica 8, 2000 Maribor, Slovenia

Dr. Uroš Maver

- 1. The Institute of Biomedical Sciences, Faculty of Medicine, University of Maribor, Taborska ulica 8, 2000 Maribor, Slovenia
- 2. The Department of Pharmacology, Faculty of Medicine, University of Maribor, Taborska ulica 8, 2000 Maribor, Slovenia

### Deadline for manuscript submissions

30 September 2026



# **Polysaccharides**

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Impact Factor 5.5 CiteScore 9.7



mdpi.com/si/260589

Polysaccharides Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 polysaccharides@mdpi.com

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# **About the Journal**

### Message from the Editor-in-Chief

Polysaccharides and their derivatives are ubiquitous biopolymers, and therefore in recent years their potential use has increasingly been explored. Polysaccharides are still the biggest class of biopolymers used in classical industries such as the paper and textile industry. The progress and fundamental aspects of the new synthesis pathways and derivatization routes, characterization, properties, as well as processing of polysaccharides is important for their possible application in modern sustainable functional materials and future green technologies.

### Editor-in-Chief

Prof. Dr. Karin Stana Kleinschek

Institute for Chemistry and Technology of Biobased Systems, Graz University of Technology, 8010 Graz, Austria

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### **High Visibility:**

indexed within ESCI (Web of Science), Scopus, FSTA, CAPlus / SciFinder, and other databases.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 36.4 days after submission; acceptance to publication is undertaken in 4.5 days (median values for papers published in this journal in the first half of 2025).

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