bioengineering

IMPACT FACTOR 3.8

Indexed in: PubMed

CITESCORE 4.0

an Open Access Journal by MDPI

Bioengineering of Polysaccharide Production Systems

Guest Editors:

Dr. Pumtiwitt C. McCarthy
Department of Chemistry, Morgan State University, Baltimore, MD 21251, USA

Dr. James Wachira
Department of Biology, Morgan State University, Baltimore, MD 21251, USA

Deadline for manuscript submissions:
closed (28 October 2022)

Message from the Guest Editors

Dear Colleagues,

Carbohydrates play a variety of functional roles in microbes, plants, and animals. Oligosaccharides and polysaccharides derived from these sources are used in drug and vaccine development, pollution remediation, food stabilization, and cosmetic chemistry, among other applications. The isolation of oligo- and polysaccharides from natural sources often involves multi-step purification techniques and can be labor intensive. As such, there is an impetus to not only understand the endogenous biosynthetic routes, but also to develop approaches for the efficient synthesis and functionalization of oligosaccharide- and polysaccharide-based biomaterials. Unlike nucleic acids and proteins, carbohydrates are not encoded for by the genome and thus the sequence and diversity of polymeric carbohydrates is determined by the existing biosynthetic pathways. Modern efforts using bioengineering methods exploit these pathways to increase carbohydrate production. This Special Issue welcomes submissions that focus on novel techniques in metabolic, genetic, and protein engineering leading to the large-scale production of natural and unnatural polysaccharides.

bioengineering

IMPACT FACTOR 3.8 | Indexed in: PubMed | CITESCORE 4.0

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie
Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.
Journal Rank: JCR - Q2 (*Engineering, Biomedical*)
Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 3.1 days (median values for papers published in this journal in the first half of 2024).

Contact Us

Bioengineering Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/bioengineering
bioengineering@mdpi.com
𝕏@Bioeng_MDPI