Special Issue

Advances in Biotechnology and Application of Microbial Surfactants

Message from the Guest Editors

Our proposal in this Special Issue is to extract biosurfactants based on the pattern of production and modification of amphotericin B and analogues, as well as truncated polyketide intermediates produced by genetic engineering in Streptomyces nodosus. Amphotericin B and similar antibiotics also work as biosurfactants, as they have been investigated from an amphiphilic molecule viewpoint, along with acting as a powerful but toxic drug used against fungal infections and leishmaniases. On a large scale, molecules and intermediates can be produced at a low cost by genetic modifications that have produced amphotericin B from Streptomyces nodosus. We propose improved methods for the manufacture and purification of such molecules (surfactants) with complete chemical analysis. The new bacterial mutants will produce biological surface active agents for commercial and research purposes. Hamycin, another polyene antifungal antibiotic (also a biosurfactant) belonging to the group of heptaene polyantibiotics, is produced by Streptomyces pimprina, an actinomycete isolated from soil.

Guest Editors

Dr. Yasushi Yamamoto

Department of Life Science and Applied Chemistry, Graduate School of Engineering, Nagoya Institute of Technology, Nagoya 466-8555, Japan

Dr. Zameer Shervani

Food & Energy Security Research & Product Center, Sendai, Japan

Deadline for manuscript submissions

closed (30 September 2024)

Bioengineering

an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed

mdpi.com/si/203092

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

mdpi.com/journal/bioengineering

Bioengineering

an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed

mdpi.com/journal/bioengineering

About the Journal

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.

Editor-in-Chief

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

Author Benefits

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 16.4 days after submission; acceptance to publication is undertaken in 3.5 days (median values for papers published in this journal in the second half of 2024).

Recognition of Reviewers:

reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.

MDPI