

## Special Issue

# Biological Process Modelling, Monitoring and Control in a Rapidly Changing World

### Message from the Guest Editors

With the closer integration of science and engineering and an emphasis on practical solutions to tackle urgent environmental, energy, and public health challenges across scales, this Special Issue invites contributions that place bioprocess modelling, monitoring and control in the domain of transformative bioengineering. The scope covers biotechnologies, processes or sub-processes and across scales, but must be framed in one or more of the core topic areas (modelling, monitoring and control), and should ideally address current or anticipated societal challenges (e.g., Sustainable Development Goals), future-facing systems (e.g., water resource recovery facilities, fully continuous bio-manufacturing) or a major technical bottleneck related to bioprocessing.

- Biological process modelling
- Biological process control
- Biological process monitoring
- Process optimization
- Advanced process control
- Predictive modelling and control
- Hybrid modelling
- Plant-wide modelling
- Process analytical technology and quality by design
- Water resource recovery processes
- Fermentation processes
- Pharmaceutical bioprocesses
- Metabolic engineering for bioprocesses

---

### Guest Editors

Dr. Matthew Wade

Dr. Dongda Zhang

Dr. Sovanna Tik

---

### Deadline for manuscript submissions

closed (20 June 2021)



**Bioengineering**

---

an Open Access Journal  
by MDPI

---

**Impact Factor 3.7**  
**CiteScore 5.3**  
**Indexed in PubMed**



[mdpi.com/si/50520](https://mdpi.com/si/50520)

*Bioengineering*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[bioengineering@mdpi.com](mailto:bioengineering@mdpi.com)

[mdpi.com/journal/  
bioengineering](https://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](https://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, CAPIus / 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 19.2 days after submission; acceptance to publication is undertaken in 3.3 days (median values for papers published in this journal in the first half of 2025).

#### 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.