



## Multiscale Modeling in Computational Biomechanics

Guest Editor:

**Prof. Dr. Tien Tuan Dao**

Univ. Lille, CNRS, Centrale Lille,  
UMR 9013-LaMcube-Laboratoire  
de Mécanique, Multiphysique,  
Multiéchelle, F-59000 Lille, France

Deadline for manuscript  
submissions:

**closed (30 June 2024)**

### Message from the Guest Editor

Computational biomechanics has been intensively investigated for the study of human body systems (musculoskeletal, cardiovascular, digestive, etc.) at multiple scales. Computational biomechanics is usually coupled with experimental biomechanics to enhance our understanding of the human body shape–function properties and their causal relationships. Thus, novel biomarkers and quantitative indicators have been extracted for clinical decision support and medical device optimization.

This Special Issue aims to bring together different scientific communities to present methodological approaches as well as practical applications related to the multiscale modeling of the human body.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Cell and tissue biomechanics;
- Organ biomechanics;
- Musculoskeletal biomechanics;
- Human locomotion and multi-body dynamics;
- Artificial intelligence, deep learning and biomechanics;
- Mixed reality and biomechanics;
- Clinical decision support;
- Multiscale characterization and multi-physical modeling;
- Multimodal medical imaging.





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](http://www.mdpi.com)

[mdpi.com/journal/bioengineering](http://mdpi.com/journal/bioengineering)  
[bioengineering@mdpi.com](mailto:bioengineering@mdpi.com)  
[X@Bioeng\\_MDPI](https://twitter.com/Bioeng_MDPI)