



Computational Biomechanics

Guest Editor:

Dr. Kwong Ming Tse

Department of Mechanical and
Product Design Engineering,
Swinburne University of
Technology, Melbourne 3122,
Australia

Deadline for manuscript
submissions:

closed (31 March 2023)

Message from the Guest Editor

Dear Colleagues,

Computational biomechanics utilizes computational techniques (e.g., finite volume method, finite element method, finite difference method, lattice Boltzmann method, boundary element method) to understand the mechanical behaviors of human tissue as well as the musculoskeletal system.

This Special Issue is dedicated to recent research advances in mathematical and computational modeling of biological tissues, ranging from cells to bones and soft tissues, as well as non-biological materials. It aims to present state-of-the-art research in the emerging multidisciplinary field involving engineering sciences, medicine, health, and ergonomics.

Specific topics of interests in this Special Issue include: Cell/cardiovascular/joint/injury/orthopedic biomechanics; Computational models/constitutive formulations for biological tissues; Computer-assisted surgery and simulation; Computer-aided design and assessment of medical devices, prostheses, and implants; Damage and rupture modeling for tissues; Mathematical modeling of growth and remodeling; Multimodal/multiscale modeling of biological tissues and engineered biomaterials.





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*)

Contact Us

Bioengineering Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/bioengineering
bioengineering@mdpi.com
[X@Bioeng_MDPI](https://twitter.com/Bioeng_MDPI)