



an Open Access Journal by MDPI

Advanced In Silico, In Vitro, and In Vivo Methods for Pulmonary Healthcare and Occupational Exposure Risk Assessment

Guest Editors:

Dr. Yu Feng

School of Chemical Engineering,
Oklahoma State University,
Stillwater, OK 74078, USA

Dr. Xiaole Chen

School of Energy and Mechanical
Engineering, Nanjing Normal
University, Nanjing 210046, China

Deadline for manuscript
submissions:

31 August 2024

Message from the Guest Editors

Dear Colleagues,

This Special Issue (SI) on “Advanced In Silico, In Vitro and In Vivo Methods for Pulmonary Healthcare and Occupational Exposure Risk Assessment”, is dedicated to advancing our understanding of multiscale lung aerosol dynamics through cutting-edge synergistic methods. Studies highlighting the clinical translation of multiscale aerosol dynamics, aiding in drug delivery optimization, inhalation therapy advancements, personalized treatment strategies, exposure risk assessments and preventions associated with environmental pollutants, occupational hazards, and aerosol-based diseases are all considered relevant to this SI. Topics of interest include, but are not limited to:

1. In Silico Methods

To Health Endpoints; Advanced Air–Mucus–Particle Flow Dynamics; Artificial Intelligence (AI) Integration

2. In Vitro Methods

More Physiologically Realistic 3D Airway Case Models; Microfluidic Lung-on-a-Chip Models;

3. In Vivo Methods

Refined Animal Models for Aerosol Studies; Imaging Techniques for Localized Lung Dosimetry Visualization



mdpi.com/si/184582

Special *Issue*



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