



Biological Fluid Dynamics

Guest Editors:

Dr. Eldad Avital

School of Engineering and
Materials Science, Queen Mary
University of London, London E1
4NS, UK

Dr. Dong Xu

College of Water Conservancy &
Hydropower Engineering, Hohai
University, Nanjing 210098, China

Dr. Efsthios Kaliviotis

Department of Mechanical
Engineering and Materials
Science and Engineering, Cyprus
University of Technology,
Limassol 3036, Cyprus

Deadline for manuscript
submissions:

closed (30 September 2023)

Message from the Guest Editors

Dear Colleagues,

Biofluid dynamics is a wide topic that merges mechanical and biological engineering as well as several fields of science. It involves a range of issues from external to internal flows and from how birds fly and animals swim to internal blood and urinary flows. The complexities of such flows in terms of geometry, multi-scale effects, fluid–structure interaction, and, in many cases, non-Newtonian fluid properties impose significant challenges when it comes to studying these flows.

For this Special Issue, we call for a wide range of papers, including those covering analytical, computational, and experimental studies of biofluids as they are related to humans and animals. Manuscripts can focus on fundamental research or applied research, e.g., the design of biofluid devices. Of particular interest are manuscripts looking at the blood, renal, and respiratory systems as well as at the external flows of swimmers, flying animals, and pathogens spreading through air/gas and water/liquid. Nonetheless, manuscripts dealing with any other field related to biofluid dynamics are welcome as well.

Dr. Eldad Avital

Dr. Dong Xu

Dr. Efsthios Kaliviotis

Guest Editors





fluids



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. D. Andrew S. Rees

Department of Mechanical
Engineering, University of Bath,
Bath BA2 7AY, UK

Message from the Editor-in-Chief

Fluids (ISSN 2311-5521) is an international journal on all aspects of fluids in open access format: research articles, reviews and other contents are released on the internet immediately after acceptance. You are invited to contribute a research article or a comprehensive review for consideration and publication in *Fluids*. The scientific community and the general public have unlimited free access to the content as soon as it is published. Please consider *Fluids* as an exceptional, exciting enterprise ready to reward your trust, attention, and active participation.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, ESCI (Web of Science), Inspec, CAPus / SciFinder, and other databases.

Journal Rank: CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

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

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

mdpi.com/journal/fluids
fluids@mdpi.com
[X@FluidsMdpi](https://twitter.com/FluidsMdpi)