



## Application of Biomechanics in Cardiovascular Diseases

Guest Editors:

**Prof. Dr. Salvatore Pasta**

Department of Engineering,  
University of Palermo, 90128  
Palermo, Italy

**Dr. Miquel Aguirre**

Centre Ingénierie et Santé, Ecole  
des Mines de Saint-Étienne Saint-  
Étienne, 42270 Saint-Priest-en-  
Jarez, France

Deadline for manuscript  
submissions:

**31 July 2024**

### Message from the Guest Editors

Dear Colleagues,

Cardiovascular diseases are the biggest cause of death in developed countries and remain a major health problem due to population aging and the increasing prevalence of risk factors. Recent advances in cardiovascular biomechanics have demonstrated not only the capability to provide a deep understanding of physiopathology, but also the potential to revolutionize the way we diagnose and treat cardiovascular disorders.

This Special Issue aims to present the most recent advances in cardiovascular biomechanics in relation to our understanding of the mechanisms underlying disease progression and development; predict responses to medical treatment and the risk of adverse outcomes; and provide insight into the design of cardiovascular devices.

Prof. Dr. Salvatore Pasta

Dr. Miquel Aguirre

*Guest Editors*





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)