Special Issue

Membrane based Materials for Artificial Organs

Message from the Guest Editor

End-stage organ failure, especially based on chronic diseases, appears with an increasing prevalence and incidence. For most cases, no durable long-term assist device exists as a final destination therapy, so transplantation is the only therapy option for these patients. In order to turn long-term biocompatible artificial organs into a reality, not only cellular aspects, but also material properties and their interactions need to be examined and optimized.This Special Issue seeks contributions of state-of-the-art and future developments in the field of membrane-based materials which can be used for artificial organs. Topics include but are not limited to novel membrane materials, enabling, for example, sufficient oxygen and carbon dioxide transfer, their novel production processes, and techniques. Additionally, the focus will be on surface treatments for improved bio- and hemocompatibility, active and passive coatings promoting hemocompatibility, biohybrid approaches for membrane biofunctionalization and computational and in silico models for fluid dynamics, prediction of transfer rates, and individualization for artificial organs.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

You are cordially invited to contribute a research article or a comprehensive review for consideration and publication in *Membranes* (ISSN 2077-0375). *Membranes* is an international, peer-reviewed open accessjournal of membrane technology published monthly online by MDPI. The journal covers the broad aspects of the science and technology of both biological and non-biological membranes, including membrane dynamics and the preparation and characterization of membranes and their applications in water, environment, energy, and food industries. Articles contributing to better understanding of transport processes in all types of membranes are also welcome. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Spas D. Kolev
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