



fluids



Special Issue Reprint

Experimental and Numerical Studies in Biomedical Engineering

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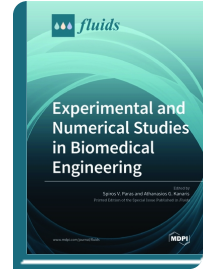
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The term ‘biomedical engineering’ refers to the application of the principles and problem-solving techniques of engineering to biology and medicine. Biomedical engineering is an interdisciplinary branch, as many of the problems health professionals are confronted with have traditionally been of interest to engineers because they involve processes that are fundamental to engineering practice. Biomedical engineers employ common engineering methods to comprehend, modify, or control biological systems, and to design and manufacture devices that can assist in the diagnosis and therapy of human diseases.

This Special Issue of *Fluids* aims to be a forum for scientists and engineers from academia and industry to present and discuss recent developments in the field of biomedical engineering. It contains papers that tackle, both numerically (Computational Fluid Dynamics studies) and experimentally, biomedical engineering problems, with a diverse range of studies focusing on the fundamental understanding of fluid flows in biological systems, modelling studies on complex rheological phenomena and molecular dynamics, design and improvement of lab-on-a-chip devices, modelling of processes inside the human body as well as drug delivery applications. Contributions have focused on problems associated with subjects that include hemodynamical flows, arterial wall shear stress, targeted drug delivery, FSI/CFD and Multiphysics simulations, molecular dynamics modelling and physiology-based



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