Special Issue

Microfluidics and Organ-on-a-Chip for Disease Modeling and Drug Screening

Message from the Guest Editors

Advanced in vitro cell culture systems, including microfluidic organ-on-a-chip (OoC) platforms, are novel and promising technologies in biomedicine. These systems aim to mimic features of human organs outside of the body. They are increasingly being employed to study the functionality of different organs for applications such as disease modeling, drug evolutions, and personalized medicine. In addition, these in vitro models can accelerate drug development by eliminating or reducing animal testing. This Special Issue aims to shed light on these promising and dynamic areas of research and will allow the gathering of original research articles and comprehensive reviews on the role of these in vitro models and platforms for further improvement of this field for disease modeling and drug screening applications in preclinical studies.

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Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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