

Special Issue

Cell Assay Chips and Applications

Message from the Guest Editor

In this Special Issue, we aim to collect innovative microfluidic engineering solutions that offer unique functionalities in cell and molecular biology, cost-effective manufacturing approaches for technology dissemination, and the automation and integration of high-throughput assays and readouts. Beyond device advancements, we also welcome novel applications of these cell assay chips, spanning drug discovery, investigations into cancer and infectious diseases, studies of stem cell research and neuroscience, point-of-care diagnostics, the development of organ-on-a-chip models, and environmental monitoring. Keywords

microfluidic cell assays
lab on a chip
micrototal analysis systems
micro-fabrication
high-throughput screening
single-cell analysis
drug screening
point-of-care diagnostics
3D cell culture
environmental monitoring

Guest Editor

Dr. Yu-Chih Chen

1. UPMC Hillman Cancer Center, University of Pittsburgh, Pittsburgh, PA 15260, USA
2. Department of Computational and Systems Biology, University of Pittsburgh, Pittsburgh, PA 15260, USA
3. CMU-Pitt Ph.D. Program in Computational Biology, Pittsburgh, PA 15260, USA
4. Department of Bioengineering, Swanson School of Engineering, University of Pittsburgh, Pittsburgh, PA 15260, USA

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
organoids@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Functional human 3D tissue models are attractive platforms for disease studies, drug development and toxicity testing. They serve as a bridge between cell cultures, animal models and clinical trials. Such models are called organoids. Numerous scientists worldwide are currently researching the generation of new complex organoid models and improving culturing conditions to handle them in a way that is reproducible, cost-effective, and easy. Achieving this goal is still a major challenge, but the organoid field has developed rapidly in recent years, reaching a new level of complexity and playing a growing role in medical research. Organoids' goal is to create a platform to present new and exciting data covering all aspects of organoid, assembloid, embryoid, or organ-on-a-chip research.

Editor-in-Chief

Prof. Dr. Süleyman Ergün

Institute of Anatomy and Cell Biology, University of Würzburg, 97070
Würzburg, Germany

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