Special Issue

Advances in Microfluidics for Quantifying Cell Mechanics and Biotransport

Message from the Guest Editors

Microfluidics is a fundamental but practical way to precisely manipulate and control fluids and small particles and has been widely used in various fields. Quantification of the mechanical properties or microscopic responses of biological cells has led to the development of appropriate mathematical models and also to systematic computational studies, which have revealed their underlying mechanics, e.g., relationships between the stress field and cell deformation. In this Special Issue, we highlight recent advances in microfluidics for quantifying cell mechanics and biotransport phenomena, with original research papers and review papers that focus on single-cell mechanics, suspension rheology, the collective behaviors of microswimmers, the mechanical responses of cells in confined fluid flow, fundamental technologies in micro-electro-mechanical systems (MEMS), and mathematical models. We look forward to receiving your submissions.

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Deadline for manuscript submissions

closed (20 August 2021)

Micromachines

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Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed

mdpi.com/si/72582

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