Special Issue

Point-of-Care Diagnostic Devices for Single-Cell Analysis and Biomarker Detection

Message from the Guest Editors

The Special Issue "Point-of-Care Diagnostic Devices for Single-Cell Analysis and Biomarker Detection" presents a comprehensive collection of cutting-edge research at the intersection of biomedical engineering, nanotechnology, and clinical diagnostics. This issue highlights the latest advancements in the development and application of innovative point-of-care (POC) devices tailored for single-cell analysis and rapid biomarker detection. The topic includes but is not limited to the following: **Microfluidic**

Platforms: Highlighting advancements in microfluidic technologies for single-cell manipulation, sorting, and analysis, with a focus on miniaturization, integration, and automation. Biosensing Strategies: Exploring novel biosensing approaches such as surface plasmon resonance, electrochemical, and optical sensors that enable the rapid and sensitive detection of biomarkers at the single-cell level. Nanotechnology

Applications: Showcasing the use of nanomaterials, nanoparticles, and nanoscale structures for enhancing signal amplification, target recognition, and multiplexed analysis in POC diagnostic devices.

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Deadline for manuscript submissions

closed (29 February 2024)



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