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Special Issue Reprint

Micro/Nanofluidic Devices for Single Cell Analysis, Volume II

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This Special Issue book entitled “Micro/nanofluidic devices for Single Cell Analysis, Volume II” covers different aspects of single-cell analysis. This book emphasizes in detail single-cell separation, manipulation, and analysis and diagnosis. It also covers single-nucleus electrical characterization, hydrodynamic stretching, microsieve filtration for genetic, phenotypic analysis which links to cellular deformability and the clinical application of an integrated microfluidic device for the isolation of circulating tumor cells and analysis. Moreover, this book describes single-cell mechanophenotyping to evaluate the behavior of U87 Glioma cells, with the heterogeneity being quantified according to the deformation of the U937 monocytes and U937-differentiated macrophages. Finally, this book also demonstrated the real-time monitoring and detection of single-cell level cytokine secretion using LSPR technology.



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