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Frontiers of Microfluidics in Biology

Guest Editor:

Dr. Jack Merrin
Nanofabrication Facility, Institute of Science and Technology Austria, Klosterneuburg, Austria

jack.merrin@ist.ac.at

Editor-in-Chief:

Prof. Dr. Anthony Guiseppi-Elie
TEES Research Professor of Engineering, Department of Biomedical Engineering, Texas A&M University

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Message from the Guest Editor

Microfluidics is a useful tool in the study of biology and medicine, from the single molecule level, such as single cell DNA sequencing or single cell RNA profiling, to the properties of gene expression and genetic noise, and all the way up to the systems biology level.

Increasingly more microfluidic assays are being developed for the isolation of rare cells, separation of cell types, single cell analysis of rare cells, and pharmacological investigations. Assays and culture of cells are now routinely miniaturized with microfluidics through droplets, chemical reaction chambers, and mother machines.

Meanwhile, microfluidics can also facilitate biochemical and DNA computation. Organisms built into arcade systems now perform as hardware components in biotic games. Microfluidic inkjet printing facilitates the synthesis of DNA with error correction allowing new cellular processes and organisms to be designed from the ground up.

This Special Issue provides a platform and advanced academic forum for the experts in the area of microfluidics to share their knowledge. We look forward to your contributions.