Special Issue

Microfluidic Flow Cells: Modelling and Experiments

Message from the Guest Editor

Microfluidics has been widely adopted by biological and biomedical research fields, including but not limited to lateral flow tests, mixing, or cell sorting. Due to the very nature of the problems, in the design phase, the microfluidic applications may greatly benefit from simulations. Additionally, computational models of fluidic systems involving the flow of cells and their manipulation may lead to computer-aided discovery. In any case, computational models of biological cells must be tightly linked to real biological experiments with cells.

To make this link, it is crucial to have very detailed information about the models as well as about the experiments. This Special Issue seeks to showcase research papers, short communications, and review articles that focus on all aspects of the relation between the cell computational models and the real biological experiments. In addition to the papers dealing with the development and application of computational models, we also encourage the publication of works that deal solely with experiments. Such papers should however contain detailed information on the experimental setup, including fluidic settings.

Guest Editor

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