Special Issue

Microfluidics in Biomedical Engineering

Message from the Guest Editor

Microfluidic systems, lab-on-chip (LOC), and micro total analysis systems (mTAS) are making remarkable contributions to the biomedical field by closing the gaps between biology–medicine and engineering. Because of this integration, our understanding of the fundamentals of biology and medicine has increased exponentially in the past decades, resulting in the discovery of new biomarkers, single cell manipulation, body-on-chips, diagnostic micro-biosensors, bio-sensitized nanomaterials and device platforms, microphotonics, etc. Microfluidics for bio applications also involve the integration of many elements, such as microfluidics, microphotonics, nanomaterials and structures, and various actuation and sensing mechanisms. This Special Issue will address challenges involved with modeling, fabrication, integration, and application-specific issues when microfluidics are designed for bio applications.

Guest Editor

Prof. Dr. Muthukumaran Packirisamy

Optical-Bio Microsystems Laboratory, Department of Mechanical and Industrial Engineering, CONCORDIA University, EV4-149, 1455 de Maisonneuve Blvd. W., Montreal, QC H3G 1M8, Canada

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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