



The Application of Cutting Edge Technology of Microfluidics in the Mechanical Behavior of Blood

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Message from the Guest Editors

The application of the cutting-edge technology of microfluidics related to the origin, development, and future of microfluidics in the history of science, and this topic first appeared in the journal *Nature* in 2006 (Whitesides G M., 2006). The new biotechnology for the advancement of toxicology and drug production, "Microfluidic organ-on-a-chip", was independently developed in 2015 by two scientific groups (of Kaplon J. D. et al., and of Esch E.W. et al.). Major advances in the field of sensors are the result of the integration of "Tissue engineering" with "Microfluidics", "Microelectronics", and "Microfabrication".

Now, when biomolecules such as peptides, proteins, nucleic acids, etc., are analyzed and controlled in "Tissue engineering", "Biosensors" provide insights into the cells, monitoring signals which can be adapted to a 3D level. The "Body on a chip" could predict precise "cell-cell" and "cell-drug" responses.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

1. Microfluid;
2. Hematology;
3. Cutting-Edge Technology;
4. Mechanical Behavior of Blood;
5. Blood





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Message from the Editor-in-Chief

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