Special Issue

N/MEMS for Biological Applications: Biosensors and Microfluidics

Message from the Guest Editor

Nano- and micro-electromechanical systems (N/MEMS) have led the tremendous development of microelectronics such as cell phones, ink-jet printers, or optical communications over the past 2–30 years through the convergence of electrical and mechanical fields. The driving force of the development with N/MEMS has also begun in biological applications, leading to various changes to overcome the limitations and provide new approaches in biological applications. There are many examples, but the most representative changes made by N/MEMS in biological applications are the detection of tiny amounts of protein in the blood using a nano-sized electrical sensor or loading cells on microfluidic chips to immediately detect substances in cells, such as a lab-on-a-chip. The role of N/MEMS in biological applications will continue to grow and produce significant results. Accordingly, the main goal of present Special Issue is the introduction of showcase papers about the applications of N/MEMS technologies in bio-fields such as electrical miniaturized biosensors, microfluidic chips for cell culturing, or biomimicking devices. We look forward to receiving your submissions.

Guest Editor

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