Special Issue

Microdevices for Neural Implants: New Approaches, Technology and Processing Strategies

Message from the Guest Editor

Dear colleagues, In recent years, the development of neural interface microdevices has resulted in revolutions in the remediation of sensory loss, electrical stimulation for the restoration of muscular function, and in directly interfacing with the brain. However, despite these significant achievements, there are still hurdles to overcome. Many of these involve addressing the complexity of the nervous system (where electrode systems must address, or record from, thousands of neurons), the challenges in building robust implantable devices that can withstand the rigors of the body (both mechanical and immune system challenges), the cost of manufacturing and implanting devices, and the depth of follow-up study to calibrate input to output. The experience of cochlear implant development has shown what can be achieved; this Special Issue will promote new ideas, approaches, and paradigms toward the development of a next generation of devices for neural interfaces.

Guest Editor

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Editor-in-Chief

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