

Special Issue

From Lab to Clinic: The Expanding Role of Robots and Actuators in Biomedicine

Message from the Guest Editors

The integration of robotics and advanced actuators into biomedical research has rapidly transformed both fundamental studies and clinical practices. This Special Issue, From Lab to Clinic: The Expanding Role of Robots and Actuators in Biomedicine, highlights the latest advances at the intersection of engineering, life sciences, and medicine. It features innovative strategies for designing, fabricating, and controlling robotic systems and actuators for diagnostic, therapeutic, and surgical applications. Topics include micro- and nanorobots for targeted drug delivery, soft robotic systems for minimally invasive interventions, and intelligent actuation technologies for real-time physiological modulation. Emphasis is placed on translational research that bridges proof-of-concept demonstrations in laboratory settings with *in vivo* studies and clinical applications. By showcasing cutting-edge interdisciplinary work, this issue aims to inspire new directions and collaborations that will accelerate the clinical deployment of robotic and actuation technologies in biomedicine.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

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