

Special Issue

Advanced Sensing Technologies for Smart Drug Delivery

Message from the Guest Editors

Smart drug delivery systems integrated with advanced sensing technologies are revolutionizing precision medicine by enabling real-time monitoring and on-demand therapeutic release. This Special Issue explores cutting-edge innovations at the intersection of biosensing and controlled drug delivery, including wearable/implantable sensors, closed-loop feedback systems, nanomaterial-based detectors, and AI-driven adaptive platforms. We invite contributions on novel sensor designs (optical, electrochemical, mechanical), responsive drug carriers (e.g., pH-, enzyme-, or biomarker-triggered), and hybrid systems for applications in chronic disease management, cancer therapy, and personalized medicine. Both fundamental research and translational studies addressing scalability, biocompatibility, and clinical validation are welcome. By bridging sensing and actuation, this Special Issue aims to highlight transformative strategies for autonomous, targeted, and efficient therapeutics.

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Message from the Editor-in-Chief

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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