Special Issue

Functional Nucleic Acid-Based Biosensors: From Fundamentals to Applications

Message from the Guest Editor

Biosensors, which exploit nucleic acids as ligand molecules and are able to detect and measure any biological or biochemical reaction, are termed functional nucleic acid-based sensors (NABs). These biosensors leverage the unique properties of nucleic acids, particularly their ability to hybridize to complementary sequences, making them highly sensitive and selective for identifying genetic material or mutations. The concentrations of various molecules within the human body (such as metabolites, hormones, and proteins) provide insights into a person's health, while environmental chemicals (including heavy metals, toxins, and industrial wastes) can impact human well-being. For this Special Issue, we welcome original research manuscripts, reviews, and minireviews on current developments in the field of nucleic acid-based biosensors. Reviews/opinions/comments should offer in-depth insights into the recent trends in FNA-based sensors and/or comprehensive analytical evaluations of the existing and future issues related to nucleic acid-based sensors.

Guest Editor

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Deadline for manuscript submissions

31 December 2025

Biosensors

an Open Access Journal by MDPI

Impact Factor 5.6
CiteScore 9.8
Indexed in PubMed

mdpi.com/si/237430

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Message from the Editor-in-Chief

Biosensors is a leading journal, devoted to fast publication of the latest achievements, technological developments and scientific research in the exciting multidisciplinary area of biosensors. Both experimental and theoretical papers are published, including all aspects of biosensor design, technology, proof of concept and application. Special issues are devoted to specific technologies and applications, and a selection of the most outstanding papers each year is recognized. Pushing the boundaries of the discipline, we invite original papers, as well as timely reviews on cutting edge fields within the subject area.

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