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Functional Nucleic Acid Based Biosensors

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Message from the Guest Editors

Dear Colleagues,

In recent years, DNAzymes have gained recognition as a powerful tool for the development of biosensors in a wide range of fields. Emerging applications in the biosensor sciences include on-site detection, point-of-care diagnostics, and non-invasive cellular and tissue imaging. DNAzymes can be obtained through in vitro selection in a test tube to deliver high affinity for a target of interest, high selectivity against interfering targets, and rapid target binding. DNAzymes can be rationally designed for biosensors, which allow the exploitation of the complementarity of DNA for controlled capture and release, as well as the incorporation of isothermal nucleic acid-based signal amplification strategies. The development of DNAzyme-based biosensors with high sensitivity, reproducible results, and stability has become a hot topic in recent years.

For this Special Issue, we welcome original research papers as well as reviews on current developments in the design of highly sensitive, selective, and reproducible DNAzyme-based biosensors.



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Special Issue



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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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