Special Issue

New Technology of Biomarker Detection Based on Microbial-Derived Biosensors

Message from the Guest Editor

Through millions of years of evolution, microorganisms have developed defense systems to protect them from attack by invading species (e.g., CRISPR-Cas for establishing adaptive immune systems and nanopore-forming toxins as virulence factors) or enable them to adapt to different conditions. These microorganism defense systems (MDSs) have inspired the development of biosensors, compared to nanomaterial-based biosensors, MDS-derived next-generation biosensing methods provide excellent results with high sensitivity and specificity and, in combination with fluorescent, electrochemical, colorimetric and acoustic devices, offer an important analytical tool for the low-cost measurement of nucleic acids, protein, bacteria cells, small molecules and metal ions. The low-cost nature of these techniques is facilitated by their scalability, as the production of microorganisms, proteins or DNA can be easily scaled up to adjust to the market needs by simply using larger or more bioreactors. We invite research submissions helping towards advancing the field of MDS-derived next-generation biosensing and its application for the high-throughput analysis of biomarkers.

Guest Editor

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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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