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## Nano Biosensor and Its Application for In Vivo/Vitro Diagnosis

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### **Message from the Guest Editor**

Dear Colleagues,

Nano-biosensors are a unique type of sensor that integrates the specific interactions of biomolecules and the superior properties of nanostructures into a sensor. The specific interactions of biomolecules, including nucleic acid hybridization, aptamer-target recognition, etc., ensure the high selectivity for detection and allow for the construction of various powerful signal generation/amplification principles for sensitive detection. On the other hand, the superior properties of nanostructures, such as electrical, magnetic, catalytic, and photothermal activities, enable them to serve as versatile and efficient signal transducers and thus construct diverse signal generation/amplification strategies for highly effective detection as well. As a result, the synergistic combination of the interactions of biomolecules and the properties of nanostructures into an integrated sensor allows for detecting and sensing with higher analytical performance. Such emerging nano-biosensors show significant advantages over conventional analytical methods, which make them attractive for the in vivo/vitro analysis of biomarkers toward applications in diagnosis.



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## Message from the Editor-in-Chief

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