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DNA-Based Sensors for Single-Molecule Biology II

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Deadline for manuscript
submissions:

closed (10 November 2022)

Message from the Guest Editor

This Special Issue of *Sensors* will be dedicated to DNA-based molecular sensors for studying biological processes at the single-molecule level. Molecular biosensors have played a crucial role in understanding biological systems from the single-cell level to tissues and organisms. The detection of individual, single-molecule events in a single cell is necessary to gain insight into the cells' heterogeneity, spatial distribution, noise, sensitivity, and regulation of molecular processes. Research into DNA-based molecular sensors has been exceptionally active, as a result of their “programmable” nature, in the creation of designer structural (e.g., DNA origami), function (e.g., DNAzymes), and detection/imaging (e.g., DNA-PAINT) elements.

In this Special Issue, we will feature the most recent progress in this field, from modeling and simulation studies to the development of new constructs of DNA-based sensors, as well as new experimental methods using these sensors for imaging and detection.



mdpi.com/si/104695

Special Issue



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Message from the Editor-in-Chief

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