Special Issue

Oligonucleotides Application to Nano- and Biotechnology (DNA Origami, DNA Machine)

Message from the Guest Editors

Progress in organic synthesis, molecular biology, and nanotechnology has made nucleic acids leading elements in numerous applications. For instance, DNA oligonucleotides are the fundamental building elements for the construction of DNA origamis, nanodevices, and nanomachines. Oligonucleotides are also essential in the development of the antisense therapy strategy and other related gene silencing methods. Conjugation of oligonucleotides to other biopolymers and/or chemical entities, such as cell penetrating peptides or metal complexes is a highly developing field of research. Lastly, the advent of SELEX has made aptamers and DNAzymes popular tools for biosensing and therapeutic applications and the inclusion of modified triphosphates broadens the scope of these functional nucleic acids. Therefore, in this Special Issue on oligonucleotides, we welcome research articles and comprehensive reviews in all mentioned areas. Prof. Dr. Shigeki Sasaki
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Guest Editors

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As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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