Special Issue

Applications of Nucleic Acids in Chemistry and Biology

Message from the Guest Editors

Since the discovery of DNA structure and its role in the storage of genetic information, nucleic acids have fascinated chemists and biologists. The achievements of Watson and Crick were followed by outstanding development in the chemistry of nucleic acids, which allowed molecular biologists to easily access nucleosides, nucleotides, and oligonucleotides—natural, or bearing a plethora of various modifications. Some examples include antiviral and anticancer nucleoside analogues, their pro-nucleotide derivatives, or therapeutic oligonucleotides designed for various applications, e.g. in antigene, antisense, aptamer, or RNAi therapeutic strategies. Despite the excellent progress made on synthetic methods and an improved understanding of the mechanisms of the biological activity of nucleic acid-derived compounds, there is a continuously increasing demand for new analogues and novel strategies for their applications. In this Special Issue, both high-quality reviews and original research articles that are likely to significantly advance the field are welcome.

Guest Editors

Prof. Dr. Michal Sobkowski

Prof. Dr. Adam Kraszewski

Dr. Joanna Romanowska

Deadline for manuscript submissions

closed (15 April 2022)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

Editor-in-Chief

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