Special Issue

Recent Advances in Non-Canonical Nucleic Acid Structures

Message from the Guest Editors

In the current far more dynamic view, the cellular functions of both DNA and RNA rely not only on their sequences but also, and above all, on their tertiary structures, which are diverse (two-, three-, four-stranded architectures), dynamic (moulded by chaperone proteins, unfolded by resolving enzymes), and involved in intricate cellular regulation networks (with a remarkably broad spectrum of biological processes, from gene expression to genome maintenance). In this Special Issue, we wish to provide a snapshot of the current state of the field, focusing on the structural characterization of DNA, RNA, and DNA/RNA non-canonical structures (e.g., G-quadruplexes, i-motifs, three-way DNA junctions), novel methodologies to assess their existence and functional relevance in human cells (e.g., next generation sequencing, optical detection methods), as well as the strategies implemented to gain control over the key cellular events controlled by the non-canonical nucleic acid structures using ever more accurate and versatile molecular tools.

Guest Editors

Dr. Liliya Yatsunyk

Department of Chemistry and Biochemistry, Swarthmore College, 500 College Avenue, Swarthmore, PA 19081, USA

Dr. David Monchaud

Institut de Chimie Moléculaire, ICMUB CNRS UMR6302, UBFC, Dijon, France

Deadline for manuscript submissions

closed (30 April 2019)

Molecules

an Open Access Journal by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed

mdpi.com/si/18810

Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

mdpi.com/journal/molecules

Molecules

an Open Access Journal by MDPI

Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed

mdpi.com/journal/molecules

MDPI

About the Journal

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Reaxys, CaPlus / SciFinder, MarinLit, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).