Special Issue

Recent Advances in RNA Synthetic Biology

Message from the Guest Editors

Synthetic biology is a multidisciplinary field of science that designs and reconstructs biological systems with the aim of giving them new abilities. RNA molecules play fundamental and diverse roles in cells, which rely on their interaction with other nucleic acids, proteins, and cell molecules. Regulatory RNAs are being extensively studied, and their use is emerging in synthetic biology to program cellular behavior through the use of genetic and metabolic engineering. Diverse sets of regulatory RNA molecules can be employed to confer a specific activity in the engineered RNA-based systems. The rapid increase in computational design and biotechnology tools permits the application of these versatile engineered RNA systems to expand our understanding of biomolecular networks. Further, the expanding catalog of designer RNAs opens the opportunity for novel applications to a wide range of organisms. This Special Issue will highlight research papers and reviews that integrate the expertise from different areas related to the control of gene expression, genome engineering, and transcriptional and post-transcriptional fine-tuning of metabolic cellular pathways.

Guest Editors

Dr. Alexandra Peregrina

Dr. Chenguang Fan

Dr. Simon Schäper

Deadline for manuscript submissions

closed (1 June 2023)

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/122357

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

mdpi.com/journal/biomolecules

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/biomolecules

About the Journal

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

Editors-in-Chief

Prof. Dr. Peter E. Nielsen
Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan
Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

Author Benefits

Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)

MDPI