

Special Issue

RNA Polymerase and Transcription Mechanism: Forefront of Physicochemical Study

Message from the Guest Editors

We tend to believe that our image on RNA polymerase and transcription have been basically established and that the methodological saturation slows further studies. However, understanding of the protein reactions is still distorted by “conventional image” of biomolecules. For example, rate equations are kept applied far beyond their limitations and Brownian ratchet is wrongly treated. The main goal of this Special Issue of *Biomolecules* is to clarify the ignored properties of macromolecules by rethinking the basis of chemical reaction in transcriptional regulations. The topics includes (i) experimental and analytical tools for inhomogeneity of protein conformations, and (ii) the contribution of thermal processes in transcriptional regulation such as Brownian ratchet and one-dimensional diffusion.

Guest Editors

Prof. Dr. Nobuo Shimamoto

National Institute of Genetics, Mishima, Shizuoka 411-8540, Japan

Dr. Masahiko Imashimizu

Cellular and Molecular Biotechnology Research, National Institute of Advanced Industrial Science and Technology, Koto-ku, Tokyo 135-0064, Japan

Deadline for manuscript submissions

closed (31 August 2021)



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/42488

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

[mdpi.com/journal/
biomolecules](https://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](https://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)