

Special Issue

Exploring RNA Biology and G-Quadruplex Structures: From Mechanisms to Applications

Message from the Guest Editor

The Special Issue explores the critical roles of RNA and RNA G-quadruplex structures in regulating various biological processes. RNA G-quadruplexes are specialized secondary structures formed by guanine-rich RNA sequences, which have been found to influence gene expression, mRNA translation, and RNA metabolism. This Special Issue invites original research articles, reviews, and perspectives that delve into the mechanisms underlying RNA G-quadruplex formation, their functions in cellular biology, and their implications in human diseases such as cancer, neurodegenerative disorders, and viral infections. Contributions focusing on innovative technologies, including high-throughput sequencing, structural biology, and computational approaches for studying RNA G-quadruplexes, are welcome. Moreover, studies investigating their potential as therapeutic targets or novel tools in biotechnology and drug discovery are encouraged. This Special Issue aims to foster a deeper understanding of RNA G-quadruplexes and promote their potential applications in biomedical and pharmaceutical sciences.

Guest Editor

Dr. Honghe Liu

1. Department of Biochemistry and Molecular Biology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD 21205, USA

2. Department of Neuroscience, School of Medicine, Johns Hopkins University, Baltimore, MD 21205, USA

Deadline for manuscript submissions

closed (31 March 2025)



Current Issues in Molecular Biology

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 3.7
Indexed in PubMed



mdpi.com/si/218348

*Current Issues in Molecular
Biology*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cimb@mdpi.com

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





Current Issues in Molecular Biology

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 3.7
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Madhav Bhatia

Department of Pathology and Molecular Medicine, University of Otago,
Christchurch 8140, New Zealand

Author Benefits

High Visibility:

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

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.3 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).

Recognition of Reviewers:

APC discount vouchers, optional signed peer review, and reviewer names are published annually in the journal.