

Special Issue

Design and Synthesis of Bioactive Peptides and Molecular Conjugates for Targeted Drug Delivery

Message from the Guest Editor

The self-assembly of peptides through non-covalent interactions leads to hierarchically ordered structures with functional properties. As Prof. Bert Meijer explains, a molecule's function emerges within its molecular environment, similar to a drug acting at its target site. Beyond synthesis, non-covalent system design is crucial for functionality. Peptide-based systems offer high biocompatibility, cellular permeability, and low immunogenicity, making them ideal biomaterials. Stimuli-responsive self-assembly, triggered by solvents, temperature, pH, enzymes, or redox gradients, enables controlled drug release, reducing off-target effects and enhancing therapeutic efficacy. These advances hold promise for cancer therapy, neurodegenerative diseases, regenerative medicine, and infectious diseases. We invite researchers to submit findings on peptides and molecular conjugates for biomarker discovery, targeted drug delivery, and treatment monitoring.

Guest Editor

Dr. Ashmeet Singh

Department of Chemistry and Biochemistry, Baylor University, Waco, TX 76706, USA

Deadline for manuscript submissions

31 December 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/230265

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 Biomedical Science, University of Otago,
Christchurch, 2 Riccarton Avenue, P.O. Box 4345, Christchurch 8140,
New Zealand

Author Benefits

High Visibility:

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

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 17.8 days after
submission; acceptance to publication is undertaken in 2.7
days (median values for papers published in this journal in
the first half of 2025).

Recognition of Reviewers:

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