

Special Issue

Advances in Supramolecular Assembly: From Bioactive Peptides to Proteins for Drug Delivery and Vaccine Engineering

Message from the Guest Editor

Along with the fast development of novel effective drugs or therapeutic vaccines worldwide, the safe and high-efficient delivery of them into targeted cells or organisms is more challenging for therapeutics. Recently, well-designed peptides or protein assemblies have attracted much attention for drug delivery and vaccine engineering. Peptides or proteins can self-assemble various morphologies such as nanospheres, nanofibers, nanolayers, micelles, and hydrogels, with good biocompatibility, excellent capacity, feasible molecular design modification, and even stimuli responsiveness. Condensing versatile drugs (organic small molecules, peptides, or antigens) into compacted nanoparticles can essentially protect them from enzymatic digestion, overcome biological barriers, and can consequently improve drug delivery efficiency. Contributions providing new insights into the molecular design strategies of subunits and the assembly technologies, to meet the criteria of drug condensation, eliminating degradation, improvement of the cellular uptake, intracellular release, and therapeutic efficiencies, will be encouraged in this Special Issue.

Guest Editor

Prof. Dr. Yuqing Wu

State Key Laboratory of Supramolecular Structure and Materials, Institute of Theoretical Chemistry, College of Chemistry, Jilin University, Changchun 130012, China

Deadline for manuscript submissions

closed (25 February 2024)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/162475

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, PMC, MEDLINE, Embase, CAPus / SciFinder, and other databases.

Journal Rank:

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