



Folding and Design of α -Helical Proteins and Peptides: Theory Meets Nanomaterials, Biotechnology and Health

Guest Editor:

Prof. Dr. Michael Kokkinidis

1. Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology-Hellas, Heraklion, Greece
2. Department of Biology, University of Crete, Heraklion, Greece

Deadline for manuscript
submissions:
closed (31 October 2021)

Message from the Guest Editor

The most common secondary structure in globular proteins is the α -helix, frequently occurring in the form of specific structural motifs such as coiled-coils and helical bundles. Being associated with a variety of functions, oligomerization states and protein topologies, the helical folding motifs have opened new avenues for the design and engineering of bio-inspired protein- or peptide-based nanostructures and functional biomaterials. Although our limited understanding of protein folding/ misfolding and oligomerization frequently presents major barriers in the development of α -helical biomaterials, recent theoretical studies and experimental approaches are beginning to chart this new territory, leading to countless possibilities for functionalization and new nanomaterials.

The aim of this Special Issue is to gather folding studies of α -helical structural motifs along with rational design experiments and applications of protein-/peptide-based biomaterials. The authors are invited to submit manuscripts presenting theoretical, experimental and applied research. Both research and review articles are welcome.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of
Odontostomatologic and
Specialized Clinical Sciences,
Sez-Biochimica, Faculty of
Medicine, Università Politecnica
delle Marche, Via Ranieri 65,
60100 Ancona, Italy

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) 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, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *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.

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, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI