Special Issue

Molecular Chaperones 2.0

Message from the Guest Editor

Homeostasis is essential for maintaining cell function. For that purpose, proteins must fold to their native state in order to achieve functionality. Many heat shock proteins (HSPs) perform chaperone functions by stabilizing new proteins to ensure correct folding or by helping to refold proteins that were damaged by cell stress. Molecular chaperones belong to the family of conservative proteins with a high homology of the primary structure in both the prokaryote and eukaryote. HSPs are often classified according to their molecular weight and members include HSP90, HSP70, HSP60, and the small HSPs. Molecular chaperones have a large functional diversity, including de novo folding and refolding of misfolded protein. Chaperones also regulate critical cellular processes, such as protein trafficking, degradation, complex assembly, and regulate functional proteins, such as steroid hormone receptors. HSPs provide protection from cellular and environmental stress factors as molecular chaperones to maintain protein homeostasis. This Special Issue will include original research papers and reviews that show the role of molecular chaperones in the functionality of homeostasis in the cell.

Guest Editor

Prof. Dr. Hideaki Itoh

Department of Life Science, Graduate School and Faculty of Engineering and Resource Science, Akita University, Akita 010-8502, Japan

Deadline for manuscript submissions

closed (31 December 2019)

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/si/21170

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

MDPI

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

MDPI

About the Journal

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.

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

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 (Organic Chemistry)