

Special Issue

Membrane Trafficking and Metal Homeostasis

Message from the Guest Editors

Membrane trafficking is a process that orchestrates the delivery of proteins, sugars, and lipids through the biosynthetic and endocytic pathways by membrane bound organelles (called “transport carriers” or “vesicles”). At the cell membrane, endocytosis and exocytosis ensure cell communication with the environment and the exchange of materials. In the cytoplasm, the lysosomal system operates as a focal point, where endocytosis, autophagy, and nutrient sensing converge. Metal-containing substances are carried to the lysosome through membrane flows, while numerous transporters allow for metal ions to move across the lysosomal membrane. This Special Issue is dedicated to the molecular mechanisms of membrane trafficking, with particular emphasis on the role of lysosomes as regulators of metal homeostasis in health and disease. Sub-topics:

- Molecular mechanisms of protein sorting
- Advanced microscopy and imaging techniques
- Storage and excretion of essential metal ions and xenobiotics (metal-based drugs and metal nanoparticles)

Guest Editors

Dr. Roman Polishchuk

Telethon Institute of Genetics and Medicine (TIGEM), Naples 80131, Italy

Prof. Dr. Fabio Arnesano

Department of Chemistry, University of Bari “A. Moro”, via E. Orabona 4, 70125 Bari, Italy

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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

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