

## Special Issue

# Ion Homeostasis and Metal Biology in Diseases

### Message from the Guest Editors

Metal ions are fundamental regulators of biological systems, supporting enzymatic activity, structural integrity, redox balance and cellular signaling. Tight control of ion homeostasis with spatiotemporal precision is essential for health, while disruptions in metal distribution, speciation or redox state contribute to a wide range of diseases, including neurodegeneration, cancer, metabolic disorders and cardiovascular disease. Despite the progress, critical questions remain regarding how metal homeostasis is established, sensed and remodeled under physiological and pathological conditions. This Special Issue, Ion Homeostasis and Metal Biology in Disease, brings together mechanistic, technological and disease focused studies that examine how metal ions are regulated and function across biological systems. Topics of interest include, but are not limited to, metal sensing and transport; the spatial organization of metals within cells; metal dependent protein function; ion dependent signaling pathways; organelle specific metal dynamics; interactions among multiple metal ions and emerging therapeutic strategies such as metal targeted drugs, chelation approaches and nanomedicine.

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### Guest Editors

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### Deadline for manuscript submissions

17 December 2026



## Biomolecules

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Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



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