

## Special Issue

# Advances and Application of Cryo-Electron Microscopy in Molecular Biology and Biomedicine

### Message from the Guest Editors

**Cryo-electron microscopy (cryo-EM)** has emerged as a powerful tool for visualizing the structures of biological macromolecules and complexes with unprecedented detail. This Special Issue aims to present the forefront of cryo-EM research, focusing on advancements that have significantly improved data quality, resolution, and throughput. In particular, the integration of artificial intelligence (AI) techniques such as deep learning algorithms has revolutionized cryo-EM data analysis, enabling more accurate and efficient interpretation of complex structures. Contributions to this Special Issue will cover a wide range of topics, including, but not limited to, sample preparation methodologies, hardware innovations, image processing algorithms, and applications in molecular biology and biomedicine. By highlighting recent breakthroughs and discussing future directions, this Special Issue seeks to inspire further innovation and collaboration in the field of cryo-EM.

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### Deadline for manuscript submissions

closed (31 March 2025)



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