

Evolving Data Standards for cryo Electron Microscopy

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The next step in enabling cryo-EM to continue its growth as a leading method for structure determination is to create best practices in reconstruction and model building and robust community-approved structure validation methods. The EMDDataResource Project (emdataresource.org) is sponsoring challenge activities to highlight the need for map and model validation standards, and to expedite development of quantitative tools for cryo-EM structure comparison and assessment with community participation. In a recent pair of challenges, the scientific community responded enthusiastically with more than 90 scientists participating worldwide. Following a participants' workshop in October 2017 at Stanford University/SLAC National Accelerator Laboratory, key results and recommendations are now collated in a December 2018 virtual special issue of the Journal of Structural Biology. In this presentation we will describe how these challenges stimulate important discussions and help propel the field forward.

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