

Evaluation of models in the 2016 Cryo-EM Model Challenge

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An evaluation system and a web infrastructure were developed for the second (2016) cryo-EM model challenge. The evaluation system includes tools to validate stereo-chemical plausibility of submitted models, check their fit to the corresponding density maps, estimate their overall and per-residue accuracy, and assess their similarity to reference cryo-EM or X-ray structures as well as other models submitted in this challenge. The web infrastructure provides a convenient interface for analyzing models at different levels of detail. It includes interactively sortable tables of evaluation scores for different subsets of models and different sublevels of structure organization, and a suite of visualization tools facilitating comparative model analysis. The results are publicly accessible at <http://model-compare.emdatabank.org>.