

Summary of integrative structure determination of Implications of a multiscale structure of the yeast Nuclear Pore Complex (PDB ID: 9A3S | pdb_00009a3s, PDB-Dev ID: PDBDEV_00000213)

1. Model Composition	
1.1. Entry composition	- Nucleoporin POM152: chain(s) A, B (1337 residues) - Nucleoporin POM34: chain(s) C, D (299 residues)
1.2. Datasets used for modeling	- 3DEM volume, EMD: EMD-41117 - 3DEM volume, Zenodo: 10.5281/zenodo.8226857 - Crosslinking-MS data, Zenodo: 10.5281/zenodo.8226857 - De Novo model, Zenodo: 10.5281/zenodo.8226857 - De Novo model, Zenodo: 10.5281/zenodo.8226857
2. Representation	
2.1. Number of representations	1
2.2. Scale	Multiscale: Coarse-grained: 1 - 2 residue(s) per bead
2.3. Number of rigid and flexible segments	16, 20
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique CrossLinkRestraint: DSSO, 36 crosslinks - 1 unique GeometricRestraint: Gaussian mixture models
4. Validation	
4.2. Number of ensembles	1
4.3. Number of models in ensembles	11
4.4. Number of deposited models	11
4.5. Model precision	9.52, Å
4.6. Data quality	EMD-41117: resolution is 7.00 Å
4.7. Model quality: assessment of excluded volume	Satisfaction: 99.53-99.54%
4.8. Fit to data used for modeling	Satisfaction of crosslinks: 75.00-100.00%
4.9. Fit to data used for validation	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
5.1. Method name	Sampling
5.2. Method type	Replica exchange monte carlo

<i>5.4. Number of computed models</i>	6400000
<i>5.5. Software</i>	- AlphaFold2 (version Not available) - IMP PMI module (version 20230908.develop.a93cf91143) - Integrative Modeling Platform (IMP) (version 20230908.develop.a93cf91143)