

Hands-on: PDB Database Exploration

Search Strategies

- Keyword search: protein name
- Advanced search: filters
- Sequence similarity
- Structure similarity

Structure Quality

- Resolution: $<2\text{\AA}$ is high quality
- R-factor: fit to data
- Ramachandran plot
- Missing residues

Functional Analysis

- Active site identification
- Ligand binding
- Protein-protein interfaces
- Conformational changes

Integration with AlphaFold

- Predicted structures available
- Confidence scores (pLDDT)
- Complement experimental data
- AlphaFold database