The Life Cycle of Structural Biology Data

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Research data is acquired, interpreted, published, reused, and sometimes eventually discarded. Understanding this life cycle better will help the development of appropriate infrastructural services, ones which make it easier for researchers to preserve, share, and find data.

Structural biology is a discipline within the life sciences, one that investigates the molecular basis of life by discovering and interpreting the shapes and motions of macromolecules. Structural biology has a strong tradition of data sharing, expressed by the founding of the Protein Data Bank (PDB) in 1971. The culture of structural biology is therefore already in line with perspective that data from publicly funded research projects are public data.

This presentation is based on the data life cycle as defined by the UK Data Archive. It identifies six stages: creating data, processing data, analysing data, preserving data, giving access to data, re-using data. For clarity, 'preserving data' and 'giving access to data' are discussed together. A final stage to the life cycle, 'discarding data', is also discussed.

The presentation concludes with recommendations for future improvements to the IT infrastructure for structural biology.

Topic Area

Data science and skills

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Primary author: MORRIS, Chris (STFC)

Presenter: MORRIS, Chris (STFC)

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