

Collegio A Volta
Università di Pavia

Macro molecular NMR

C Redfield

University of Oxford

Monday 8th to
Friday 12th of May
2.00 pm to 6.00 pm
in the College
Lecture Theatre

Nuclear Magnetic Resonance (NMR) spectroscopy is a powerful method for the study of biological molecules in solution. It provides residue-specific, atomic-level information on biological macromolecules in their native-like environment and dynamics and ligand interactions. NMR data can complement information obtained by X-ray crystallography, cryo-EM, SAXS and other biophysical methods. The course will include lectures and practical sessions. Topics will include:

- Introduction to Biomolecular NMR
- Basic concepts in NMR Spectroscopy
- Assignment of Protein NMR Spectra
- Assignment using ^1H NMR methods
- Assignment using ^{15}N and ^{13}C Labeling
- Extracting Structural Information from NMR Parameters
- Structure Determination from NMR
- Protein Dynamics
- NMR of Nucleic Acids
- Protein-ligand interactions

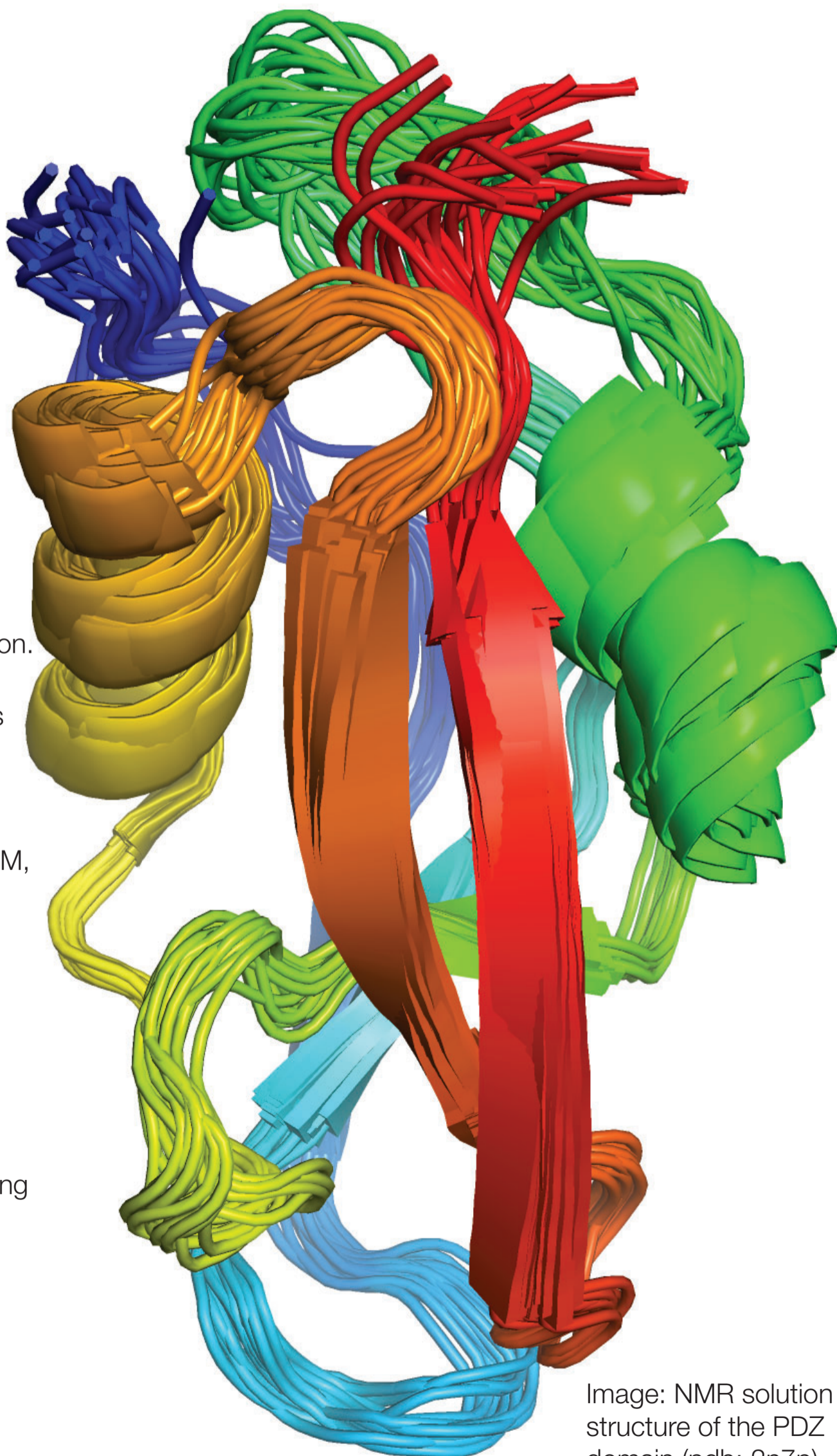


Image: NMR solution structure of the PDZ domain (pdb: 2n7p)

Further information from E Gherardi <egherard@unipv.it>

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