1. The encounter state of protein-protein association can be populated significantly in weak protein complexes. Chapter 2

2. For a system including two components (two domains or proteins), when an external medium was used to obtain the weak alignment for RDC measurement, the intermolecular dynamics can be implied from the different ordering tensors experienced by the two components. But failure to observe such difference does not exclude the dynamics. Chapter 3

3. The large $\Delta \delta_{\text{avg}}$ values observed classify the Fd/FTR complex as a well-defined complex, with little internal dynamics. Chapter 4

4. The elongated, flat structure of FTR is optimized for simultaneous binding of its two substrates, enabling a flow of electrons from the 2Fe-2S cluster in Fd via the 4Fe-4S cluster of FTR to the disulfide bond in Trx. Chapter 6

5. The observation that ligand binding can sometimes induce changes in conformational flexibility in regions of the structure distant from the binding site raises the intriguing possibility that such dynamic changes could influence the cooperativity of ligand binding to multiple sites in the same protein.

(Martin J. Stone. *Accounts in chemical research* 2001, 34, 379-388)
6. The Protein Structural Initiative (PSI) has shortcomings. Indeed, a major PSI weakness is its failure to adequately address the issue of structure determination of protein complexes.


7. The disruption of protein–protein interactions by small compound mimics is a difficult challenge, primarily because of the large interfacial area required for specific recognition, as well as the unique topological distribution of charged, polar and hydrophobic residues on the protein surface.

   (Fletcher S. and Hamilton AD, *Curr. Opin. Chem. Biol* 2005, 9, 632-638)

8. Potential binding sites are imprinted in the unbound state of a protein.


9. Three decades after introducing market reforms and opening up to the rest of the world, China has become a major economic power. As the country prepares to show the world its sporting might, its competitiveness in life sciences still needs a boost.


10. No science is immune to the infection of politics and the corruption of power.

11. Experience is simply the name we give our mistakes (Oscar Wilde). This is particularly true for PhD training.