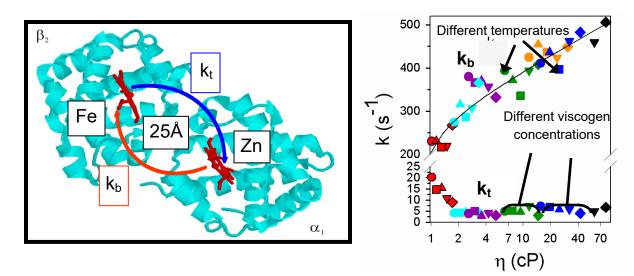


Inter-Protein Electron Transfer Subgroup

The inter-protein electron transfer (ET) subgroup aims to study the fundamental structural, dynamic, and energetic features that control the protein-protein electron transfer kinetics and the relationship between binding and reactivity.

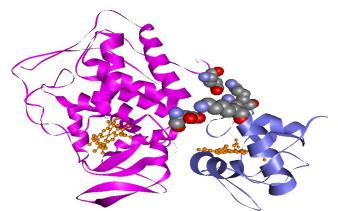
Mixed Metal Hemoglobin Hybrids

Mixed metal hemoglobin hybrids are used as a "predocked" complex to explore the effects of the material environment upon ET.



Cytochrome c Peroxidase and Cytochrome c

Cytochrome c peroxidase (CcP) and cytochrome c (Cyt c) are used as a model system for proteins with multiple binding domains to study complex kinetics.



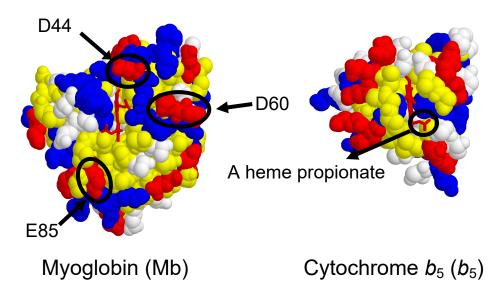
The W191F mutation of CcP eliminates the redox active tryptophan and allows

direct heme-heme electron-transfer.

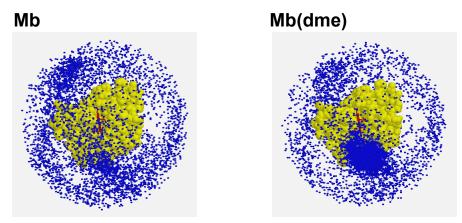
Project Collaborators: Prof. Marcellus Ubbink (Leiden University)

Myoglobin and Cytochrome b₅

Myoglobin (Mb) and cytochrome b_5 (b_5) constitute a model system for the 'dynamic docking' paradigm



Mutagenesis and heme esterification (dme) increases reactivity and binding between Mb and b_5



Project Collaborators: <u>Prof. Amy Rosenzweig</u> (NU) and <u>Prof. Michael</u> <u>Wasielewski</u> (NU)

Funding

Illinois Department of Public Health

Molecular Biophysics Training Program



