

Monday, June 16th, 2014
LSC 3 - Life Sciences Centre
2350 Health Sciences Mall
12-1pm

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“Oligomerization of heme proteins by domain swapping”

We found that cyt *c* forms polymers by domain swapping, where the C-terminal helix is displaced from its original position in the monomer and Met-heme coordination is perturbed significantly. Dimeric HT cyt C_{552} exhibited a domain-swapped structure, where the N-terminal α -helix together with the heme was exchanged between protomers. Mb formed a domain-swapped dimer with two extended α -helices. Each new long α -helix was formed by the E and F helices and the EF-loop of the original monomer, and as a result the proximal and distal histidines of the heme originated from different protomers. The structure and function of domain-swapped cyt *c* and Mb will be discussed in detail. Ref: Proc. Natl. Acad. Sci. USA 107, 12854-112859 (2010)