BiophysTO Lunchtime Talks

Carlos Ramos

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Studies on structure, function and interactions of the heat shock protein Hsp40

Molecular chaperones and heat shock proteins (HSPs), in association with the proteasome system, assist in the maintenance of equilibrium between protein folding and degradation. Among the most important chaperone families are the HSP70 family because of the central role they play in the Protein Quality Control system. The interaction of HSP70 with J-proteins induces ATP hydrolysis and, consequently, the predominance of the ADP-bound state, increasing the affinity for client protein (unfolded or partially unfolded proteins). In this process, J-proteins deliver the correct client protein and stimulate HSP70 activity. Despite a wealth of studies conducted on the relevance of J-protein/HSP70 complex formation, there is a dearth of information regarding the exact molecular mode of interaction because the activation of Hsp70 by the J-domain involves a transient contact between these components. I will discuss recent findings on the structure of the J-protein and its cooperation with HSP70 in assisting protein folding.

Host: Dr. Walid A. Houry

(Refreshments and pizza will be provided)

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Thursday, Nov 17, 2016 – 12:00 pm, noon
McLennan Physical Laboratories, Room MP606
(and via streaming to DV3129 at UTM)