

Students' Annual Seminar

Investigation of domain interaction in Apolipoprotein E

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Apolipoprotein E4 (apoE4) is the strongest risk factor in Alzheimer's disease while apoE3 is normal. However differences in the interactions between the N- and C-terminal domains have been proposed to cause the differences between the isoforms. Here we attempt to measure the domain-domain interactions quantitatively by measuring the stabilities of the N-terminal domain of apoE3 and apoE4 in presence and absence of the C-terminal domains. The N-terminal domain in apoE4 but not in apoE3 is destabilized in presence of the C-terminal domain. In addition we have measured the domain interactions and shown that these interactions lead to destabilization of N-terminal domain in apoE4 by 0.6 Kcal/mol. Differences in the domain-domain interactions between apoE3 and apoE4 may play a major role in the pathology of Alzheimer's disease.

Tuesday, May 9th 2017

4:00 PM (Tea/Coffee at 3:45 PM)

Seminar Hall, TCIS