

Seminar

Thursday 25 August 2011

11.00 am - Room 531

Associate Professor Craig A. Hutton

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Synthesis of Tyrosine Cross-linked Amyloid Peptides: the Culprit in Alzheimer's Disease?

Covalently cross-linked oligomers of A-beta peptide have been implicated as possible neurotoxic species in the progression of Alzheimer's disease.

Evidence suggests that oxidative coupling of the tyrosine residue in A-beta, generating dityrosine cross-links, is the process by which oligomers are formed. However, conclusive evidence of the neurotoxicity of these species requires the preparation of discrete, covalently linked A-beta dimers.

The development of a novel, solid-phase method for the preparation of dityrosine-linked Ab40 and Ab42 peptide dimers, and determination of their biophysical properties, will be presented.