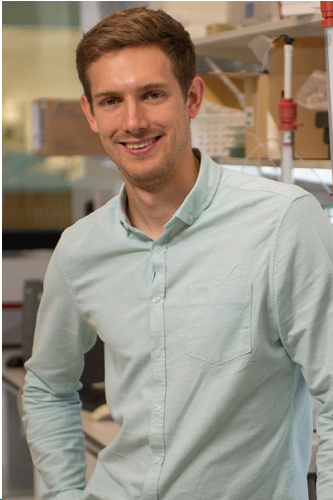


# BIOCHEMISTRY SEMINAR SERIES



“Amyloid conformers in neurodegenerative disease”

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**Prof. Benjamin Falcon**

MRC Laboratory of Molecular Biology

The ordered self-assembly of a small number of proteins into fibrillar amyloid structures is a feature of neurodegenerative diseases. Mutations in the genes encoding these proteins lead to assembly and inherited neurodegenerative disease, demonstrating a causal role. Assemblies arise in discrete brain regions, from where they appear to propagate (spread and amplify) within connected brain networks, ultimately leading to characteristic patterns of neurodegeneration. We use cryo-EM to determine the high-resolution ex vivo structures of amyloid fibrils isolated from patient brain. Our results establish the existence of disease-specific amyloid conformers. Conformers are formed from conserved secondary structure motifs with markedly different conformations at turn residues. In addition, the identification of distinct, non-proteinaceous components within the ordered cores of fibrils suggests a novel role for cofactors in assembly and conformer formation.

**Friday, March 5, 2021**

via Zoom

1:30 pm

*Please contact host if you would like to meet with speaker: Callie Glynn, Rodriguez Lab, [cglynn@ucla.edu](mailto:cglynn@ucla.edu)*

More information: [marla@chem.ucla.edu](mailto:marla@chem.ucla.edu)