

## Protein nanofibrils

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Many proteins possess an intrinsic susceptibility to self-assemble from their normal soluble form into elongated nanostructures, commonly known as amyloid fibrils – a process which has intricate connections with many important normal and aberrant biological pathways. This talk discusses protein nanofibrils both from a biomedical and a bionanotechnology point of view. The uncontrolled formation and growth of such amyloid structures is associated with increasingly prevalent disorders, including type II diabetes and Alzheimer's disease, but such structures are also found in functional roles in nature, including as catalytic scaffolds, functional coatings and as mediators of epigenetic information in micro-organisms.

This talk presents results from the use of a range of experimental approaches, including scanning probe microscopy, biosensors and microfluidic devices, and their application to develop a quantitative understanding of the parameters which control protein self-assembly on the nanoscale.

### References:

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