

BiophysTO Lunchtime Seminar Series

Prof. Bart Hoogenboom

London Centre for Nanotechnology University College London Date

Thursday, Feb 15 , 2018 [12:10 (noon)]

Location

McLennan, MP606 60 St George st

Pizza & refreshments provided

Imaging and probing biomolecular assemblies at nanometre resolution

Reductionists, biomimetic and/or synthetic model systems are powerful tools to understand complex biological machinery. We use, e.g., reconstituted lipid bilayers to study self-assembly and membrane pore formation by immune proteins (perforins) that punch holes in virus-infected and cancerous cells; and assemblies of unstructured, disordered proteins to investigate mechanisms underlying the selectivity of transport into and out of the cell nucleus. Our favourite tool for such studies is atomic force microscopy (AFM), for its ability to resolve biomolecules at ~1 nm spatial resolution in aqueous environment. We complement it by physical/computational modelling and other microscopy approaches, including electron and fluorescence microscopy

Seminar Sponsors

UTM

Chemical and Physical Sciences VP Research Vice-Dean Graduate

Host: Dr. AntonZilman

UTSG

Biochemistry IBBME Physics Chemistry

Medical Biophysics