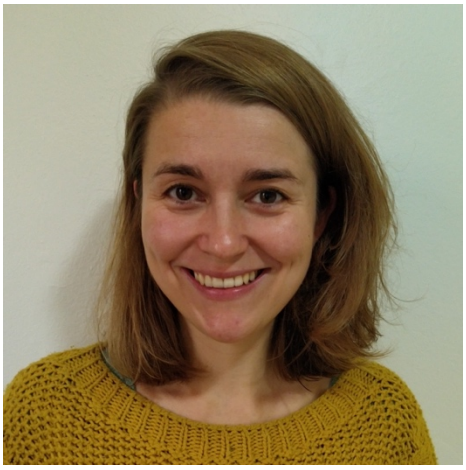
EMBL Australia
Single Molecule Science

SMS External Seminar Series 2022
Central Lecture Block 7 (CLB7)
11 am, 4th November 2022

UNSW AUSTRALIA

Dyes and Droplets: Capturing simultaneous structural and functional dynamics of membrane proteins.



Presented by

Dr Eve Weatherill

King's College London

Abstract

In the study of membrane protein dynamics, the ability to probe structural changes at the single molecule level, and correlate them with a direct functional readout, is a powerful tool for investigating membrane protein dynamics. Droplet-interface bilayers (DIBs), coupled with single-molecule fluorescence microscopy, present a versatile platform for conducting such experiments. This seminar will discuss the application of such simultaneous measurements to understanding the assembly kinetics of a bacterial pore-forming toxin, PFO, and the gating mechanism of a bacterial mechanosensitive channel, MscS.

Biography

Eve Weatherill studied Biochemistry as an undergraduate at Bristol University, including a year working in industry, developing bi-specific antibody formats. She completed her PhD in Chemical Biology at Oxford University in the lab of Mark Wallace, where she remained as a post-doc after the lab moved to King's College London. Her research focuses on the folding and assembly of pore-forming proteins in artificial membranes.

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