## **Examining Membrane Biochemistry with Neutron Reflectometry**



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## What do Biology and Medicine need from NR?

Thursday, 8 September 2022 15:50 (1 hour)

When I belatedly started using neutrons in my career my research interests included the Gram negative outer membrane (OM) and surface bound proteins. Both leant well to NR research and since then I have been helped by supportive colleagues to answer some fundamental questions about my research areas. These include the structure of the OM, its dynamics and interactions with proteins and antibiotics. For biosensors we showed how antibodies interact with immobilised antigens in a commercial application and how proteins can be stabilised within self-assembling monolayers. I will discuss these and, more generally, the areas where biology and medicine still lack critical information which I think neutrons could supply. I have always been optimistic about NR's sensitivity, speed and information content so my ideas for the future may be overly ambitious but we ought to try.

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