Research Seminar

NUS National University of Singapore

Department of Chemistry
Faculty of Science

Playing with DNA: Synthesis, Recognition & Photochemistry

by Professor Eimer Tuite
School of Natural and Environmental Sciences, Newcastle University, United Kingdom

Host: A/P Christian Nijhuis | Wed, 22 Jan 2020 12:00 – 13:30 Seminar Room 1 (MD1-08-01E)

About Professor Eimer Tuite

Professor Tuite obtained her BA in Natural Sciences (1987) from Trinity College Dublin where she remained to carry out PhD (1992) studies in photophysics with John M Kelly. A PDRA position on polarized spectroscopy at Chalmers University of Technology in Gothenburg, Sweden with Bengt Nordén led to an assistant professorship at the same institution. In 2000, she moved to Newcastle University in the North-East of England where she teaches physical chemistry, continues research in biophysical chemistry and photochemistry, and enjoys communicating science to the public.

Abstract

Outside its biological context, DNA is a fascinating polymer with complicated physical, structural, and dynamic properties. Non-covalent recognition of DNA by small molecules and nucleic acid analogues leads to assemblies that possess different functions depending on the desired application. This presentation will describe our work on templating of functional molecule synthesis, electron transfer, and DNA damage. Underlying these areas is work with Andrew Pike on synthesis of multiply modified and functional DNA.

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