



Lichfield Science & Engineering Society

LICHFIELD **GARRICK**
Theatre & Studio

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OXYGEN: ESSENTIAL BUT DETRIMENTAL - A FINE BALANCE

Professor Corinne Spickett
University of Aston

8:00 pm on Tuesday, 9th January 2024
In the Studio Theatre of the Lichfield Garrick

Corinne Spickett is a professor of redox biochemistry in the School of Biosciences, Aston University. Her first degree and D.Phil. were in biochemistry at Oxford University and after postdoctoral work in Oxford, Cambridge and Strathclyde, she became a Glaxo-Jack Research Lecturer at the University of Strathclyde. Her research focus is cellular responses to oxidative stress, involving analysis by mass spectrometry of phospholipid and protein oxidation and the biological effects of oxidized lipids, especially as relating to atherosclerosis and inflammation. She is an internationally recognized researcher in the field of redox biology and has held senior roles in the Society for Free Radical Research Europe and several European COST Actions, most recently EpiLipidNET as well as coordinating the H-2020 Innovative Training Network "MASSTRPLAN".

We tend to take oxygen for granted as something essential for life, but it is highly reactive and poses a challenge for organisms from yeast to man. The lecture will explain the reactivity of oxygen and how it can be used to support life by harvesting energy from fuel molecules but can also form damaging reactive oxygen species. It will introduce the concept of oxidative stress and how failure to control it leads to lipid and protein oxidation, and ultimately to diseases. It will illustrate how advanced technology can be used to measure damage to biomolecules to help understand their biological effects. In parallel, it will illustrate how academic research careers are often non-linear and often depend on serendipity.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £8.00. Tickets are not issued in advance, please pay at the door.
Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.
This lecture is expected to finish by 9.30 pm.