

Guest lecture

Identification and quantification of protein oxidation in biological systems



2 March 2015

11.30 AM in BMB seminar room

Professor Michael Jonathan Davies

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Professor Michael Davies has pioneered studies on the formation and subsequent reactions of oxidants and other reactive species with proteins, DNA and carbohydrates, and the role of such reactions in biological damage. He has made major contributions to the field of oxidants and oxidative damage. His work on protein modification and the detection and reactions of reactive intermediates is recognised nationally and internationally and has resulted in a number of significant awards and his election to a number of prestigious leadership positions in scientific societies. He has held three prestigious fellowships from the Australian Research Council (QE2, Senior and Professorial), was Director of a (~25 million US\$ per annum turnover) research institute, and led the Sydney (Australia) node of a highly-successful Australian Research Council Centre of Excellence in Free Radical Chemistry and Biotechnology (2006-2013) before moving to the University of Copenhagen, in 2014, after being awarded a Novo Nordisk Laureate research grant. A key goal of his research is understanding the biochemical behaviour of oxidants associated with inflammation (e.g. hypochlorous acid, peroxyxynitrous acid, metal ions and radicals derived from these species) and elevated glucose levels (as seen in diabetes), and how these damage cells (endothelial, smooth muscle and macrophages) of relevance to cardiovascular disease, and their associated extracellular matrix.

Host: Adelina Rogowska-Wrzesinska, Department of Biochemistry and Molecular Biology, SDU