

## CBC SEMINAR ANNOUNCEMENT

**Professor Richard Strange**  
**University of Liverpool**

### **Structural biology at Liverpool: Research activities and opportunities**

My educational background is in physics (Keele University PhD, 1984). My work has contributed to around 100 peer-reviewed research papers and book chapters (h-factor 32). In my early career, I made especially significant contributions to the biological applications of X-ray Absorption Spectroscopy (XAS), including the first demonstration of the importance of multiple scattering and the use of constraints and restraints in XAS data analysis. These developments have since become the standard methods used in BioXAS research worldwide. More recently, I have promoted through invited review papers and invited talks, the combined use of XAS and Protein Crystallography, highlighting the synergy between these techniques to bring together these two communities of researchers. I was a member of the XAFS IUCr dictionary work group, 2008-2010 and I am a co-editor of J. Synchr Radiation. I am a visiting scientists at RIKEN, since 2009. I am currently working on a structure-based project on human SOD1, which is focused on pathogenic mutations that cause motor neuron disease and am engaged, via a fragment-based approach, to identify potential drug-like molecules that would alleviate or inhibit disease onset or progression. Molecular dynamics is also a major component of this research programme. Enzymes from the bacterial denitrification pathway, part of the global nitrogen cycle with obvious environmental significance, have been part of my research activities for several years, targeting the key structural features relevant to the catalytic mechanisms (nitrite binding and turnover). Preparations for future applications of the powerful XFELs to biological systems has been a recent area of interest.

<b>Date:</b>	<b>22<sup>nd</sup> November 2012 (Thursday)</b>
<b>Time:</b>	<b>2:30pm – 4:00pm</b>
<b>Venue:</b>	<b>NTU SPMS CBC Building Level 2, Conference Room</b>
<b>Host:</b>	<b>Asst Professor Hajime Hirao</b>