New South Wales - AMAS and AMMS Technical Meeting at UWS

When nano meets bio: Interdisciplinary applications of electron microscopy

On Wednesday 23rd Of October 2013, Professor Martin Saunders, who is both the Acting Director for the Centre for Microscopy, Characterisation and Analysis at the University of Western Australia and also the President of the Australian Microscopy and Microanalysis Society (AMMS) spoke to an audience of around 40 people at the University of Western Sydney (UWS).

For the past twenty years, Martin has conducted research involving the development and application of electron microscopy techniques for nano- and atomic-scale structural and chemical analysis. He is always searching for interesting applications of techniques such as electron diffraction, high resolution TEM, STEM, EDS, energy-filtered TEM, electron energy-loss spectroscopy, and many others. Martin has predominantly collaborated with physicists, chemists and engineers, and is increasingly finding that working with biologists is much more rewarding. This allows him to explore novel applications of techniques traditionally applied in the physical sciences.

One of the areas that has proved particularly fruitful for him relates to projects where the concepts of nanomaterials and nanotechnology meet the world of biology. Martin illustrated this with examples from recent collaborations involving molluscs that biomineralise iron oxide teeth, drug delivery capsules for neuroscience, and the search for a magnetic sense in pigeons.

During the lecture many examples of the latest application data collected were presented from the many areas of materials and biological sciences. I would like to thank Martin for presenting this inspiring talk and for making the afternoon/evening so informative. More importantly, I would like to thank Martin for taking time to speak with many from the audience after his presentation.

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