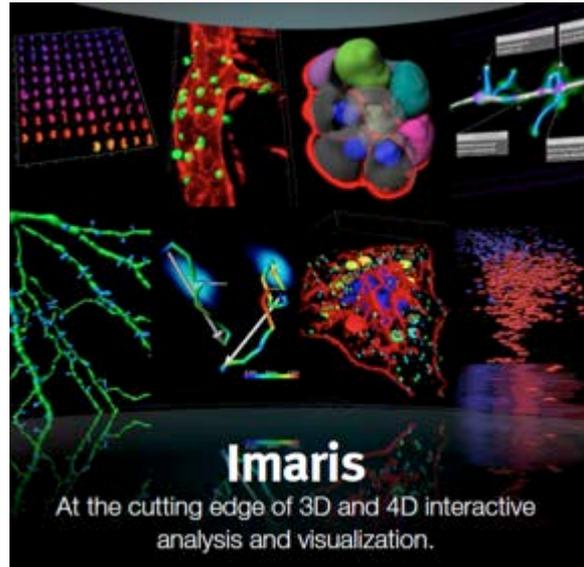


3D/4D Visualization & Analysis Imaris 8 Workshop

**Confocal Bioimaging Facility
UWS Hawkesbury Campus
Office of Deputy Vice
Chancellor, Research and
Development
Date: 18 May 2015**



On Monday the 18th of May, a 3D/4D Microscopy Image Analysis Workshop on IMARIS was held at the University of Western Sydney, Hawkesbury Campus. This was organised by Dr Anya Salih, the Confocal Bio-imaging Facility Manager. This event was supported by the Office of the DVC Research & Innovation at UWS and the Imaris software company Bitplane.

This workshop was FREE to all staff and students and some 30 people attended. Various imaging technologies, such as laser confocal microscopes or x-ray, CT and MRI, generate series of images and contain enormous amounts of information. The state-of-the-art Imaris software provides the means of vitalization of these data sets and detailed quantitative analyses.

The presentations were started with Dr Anya Salih covering confocal imaging, followed by whole day lecture and hands-on-training sessions by Imaris applications specialist, Steve Chai from Bitplane, visiting Australia from overseas. Staff and students attending this workshop were provided with a temporary Imaris license to down-load to their laptops and were trained in the many aspects and capabilities of the IMARIS8 Software. Topics covered included:

- Basics of Visualization - 3D Volume and surface rendering for surface area analysis
- Visualisation Outputs - How to make annotations, snapshots, movies and animations, 2D / 3D image segmentation and time-lapse analysis, colocalisation analyses, automatic calculation of parameters and statistics.
- Object Tracking & Advanced Statistics - Identifying, classifying, sorting and tracking objects over time (e.g. organisms, cells, organelles as chloroplasts or nuclei, etc.).
- Filament Tracing - How to trace dendrites, neurons, blood vessels, glandular tubes, actin and tubulin filaments, etc.

- At the end of the day, further discussions and analysis of participants' results were covered as well as a visit to the Confocal facility for prospective students.

I know that many gained extensive experience with this full day workshop. It was great see so many new users having access to the software and learn the capabilities. I am sure many will find it very valuable for the research work.

