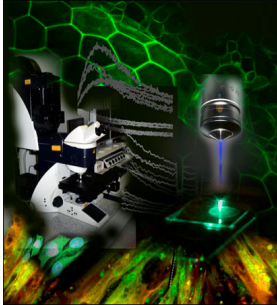


Confocal Bio-Imaging Facility (CBIF)

College of Health and Science



The newly-founded CBIF contains state-of-the-art confocal and light microscopes, as well as a range of microanalytical instruments.

Bio-Imaging - unites the power of microscopy, biology, biophysics, biochemistry and advanced computational methods to study how genes, molecules and proteins work and interact in living cells and organisms. With the help of fluorescence and confocal microscopes we are able to visualize the structure and

to decipher animal and plant cell processes and to study how they are affected by changing environmental, physiological and disease conditions, such as cancer.

Aims of CBIF: The Facility is open to students, researchers, collaborators and industrial users. We provide expertise, training and access to a range of leading-edge microscopes, analytical instruments and image visualization and analysis tools. We help to find solutions to bio-imaging and microanalysis problems in molecular sciences, plant and animal biology, microbiology, medicine, chemistry, forensics and biophotonics.



Instruments at CBIF

- **Inverted Leica TCS SP5 laser scanning confocal microscope** - This system uses AOBS variable spectral detection instead of traditional emission filters and has the following laser lines: 405, 458, 476, 488, 496, 514, 561, 594 and 633 nm. It has micro-spectral detection capability and has a fully tuneable **Multi-Photon imaging system**; a **Becker & Hickl Fluorescence Lifetime Imaging (FLIM)** system and **fluorescence correlation spectroscopy system**.
- **Upright Leica DM6000B laser scanning confocal microscope** with 458, 476, 488, 514, 543 and 633 nm laser lines and the **Horiba Raman spectral** detection capability.
- **Other light and fluorescence microscopes and equipment:** Fluorescence Olympus BX60 microscope and Jenoptik ProgRes C14 digital camera. Fluorescence Leica MZ12 stereomicroscope and JVC digital camera. Automontage software package with associated hardware - automated Z drive and Optiscan unit. Leica Z16 Apo macroscope and Leica DFC 500 digital camera. Leica RM 2165 rotary microtome. Leica EM KMR2 glass knife maker. Olympus E1 5 megapixel digital camera with macro lens, infra-red and UV filters. Olympus PM C35DX 35mm camera and control unit for photomicrography.

- **Other Analytical Instruments:** Varian 820-MS ICP Mass Spectrometer; UP-193 Laser Ablation System; Tru-Spec CN Carbon / Nitrogen Determinator; UV-Vis Detector / Varian Polaris HPLC system; Varian SPS3 Sample Preparation System.

Address:

Centre for Plant and Food Science (PAFS)

University of Western Sydney

Richmond Campus

Bldg S8, room 39

Locked Bag 1797

ph 61 2 45 701543

fax 61 2 45 701314