

March 2003

MISSION STATEMENT

To create a teaching and research centre of excellence for microscopy and microstructure analysis.

WE'VE CHANGED

From the Director

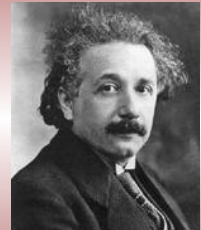
Apart from the obvious name change to Adelaide Microscopy there have been several other changes that have occurred over the past few months. The name change was brought about by the need to have a greater identity within the University and throughout the broader research community. The old name (Centre for Electron Microscopy and Microstructure Analysis) no longer reflects the centre's capability. The changes to the instrument profile brought about by the relocation of the Confocal and Multiphoton Instruments from the Waite Campus and the purchase of an X-ray Micro-Tomography (XMT) system has not taken the focus away from Electron Beam Instruments but instead provided complementary imaging systems, especially in the growth areas of 3-dimensional imaging of the internal structures of samples. The Scanned Laser Systems (Confocal and Multiphoton) are particularly useful in plant and animal materials, and the XMT is finding many new areas of interest from metal and plastic foams, food stuffs, bone density measurements, pore size and distribution in igneous rocks to the imperfections in dental restoration materials.

The one thing that has not changed is the friendliness and competency of the staff of Adelaide Microscopy who will continue to support our users. If you have any need to discuss microscopy at any level, I am sure that our staff will be able to advise on the availability or application you have in mind.

Staff Updates

John Terlet—Director
Peter Self—Senior Electron Microscopist
Meredith Wallwork—Senior Microscopist
Lyn Waterhouse—Electron Microscopist
Linda Matto—Administrative Officer
(who has changed her name as well!)

*"If we knew
what it was we
were doing, it
would not be
called research,
would it?"*
Albert Einstein

**Peter's visit to AMAS VII**

Adelaide Microscopy's expertise in x-ray micro computer aided tomography (micro-CT) was recognised with an invitation by the organising committee of the seventh biennial AMAS Symposium for a member of Adelaide Microscopy staff to deliver a presentation on the use of micro-CT. This Symposium, held under the banners of the Australian Microbeam Analysis Society and the Australian Microscopy and Microanalysis Society, was convened at Melbourne University and had approximately 100 attendees. Peter Self presented a talk entitled "X-ray microtomography: applications and developments" in which he detailed micro-CT results obtained on the Adelaide Microscopy Skyscan 1072 micro-CT instrument. Tomographic images from a range of materials including bone, teeth, wood, polymers and porous metals were presented. Areas relating to x-ray micro-CT currently under development at Adelaide Microscopy including pore size distribution measurements and feature recognition were also presented. The presentation at AMAS VII was partly sponsored by Thomson Scientific Instruments. For details of the capabilities of x-ray micro-CT at Adelaide Microscopy contact microscopy@adelaide.edu.au or view our web page at <http://www.adelaide.edu.au/microscopy/services/instrumentation/x-ray.html>

Confocal Workshops 2002

The 2002 confocal workshops received great feedback. The Introductory Confocal Workshop was designed for current confocal users to gain further knowledge about the theory of Confocal and Multiphoton microscopy as well as participating in practical sessions and software demonstrations. Workshop attendees have become more independent in the use of the instruments and as a result have much greater access to the microscopes.

To register your interest for 2003 workshops email microscopy@adelaide.edu with your name and contact details.

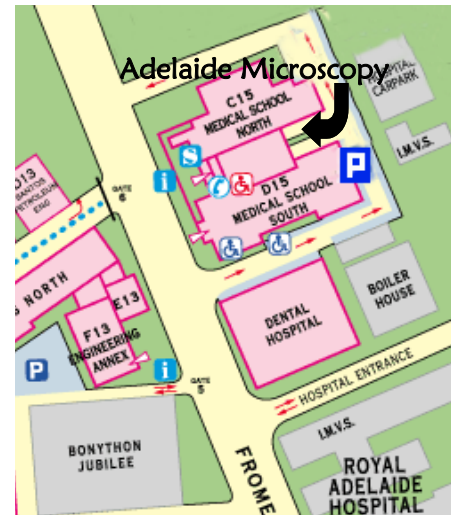
Server changes from Ruska to Dornwell

Instructions on how to remotely access the new network for your images are available as a PDF file on our web site :

<http://www.adelaide.edu.au/microscopy/services/remote/> and ask a staff member for the password or email microscopy@adelaide.edu.au

Parking

We are kindly provided with a reserved parking space at the rear of the Medical School South Building. Free parking can be arranged by booking a permit to use for Adelaide Microscopy's reserved parking bay. Alternatively there is a multistorey car park (U-Park) directly behind the Medical School.



OH&S News

If you have any concerns regarding the safety of researchers or suggestions for improvements to the centre forward correspondence to lyn.waterhouse@adelaide.edu.au

Seminars

At Adelaide Microscopy our aim is to provide expertise and assistance to all researchers in the area of microscopy. As we do not favour one specific discipline of research we would like to invite your area to request Adelaide Microscopy staff to speak on a certain area of microscopy or sponsor visiting speakers, seminars or other initiatives within the microscopy community. Speak to your local Adelaide Microscopy representative for further information.

Prof Edwina Cornish (DVCR, The University of Adelaide)
 Prof Margaret Sedgley (HVO, The University of Adelaide)
 Prof Wayne Sampson (Dental School, The University of Adelaide)
 Prof Greg Barritt (Dept Medical Biochemistry, Flinders University)
 Prof Ian Gibbins (Anatomy & Histology, Flinders University)
 A/Prof William Breed (Anatomical Sciences, The University of Adelaide)
 A/Prof John Foden (Geology & Geophysics, The University of Adelaide)
 Dr. Bernie Hughes (School of Pharmacy, University of South Australia)

A/Prof David Chittleborough (Soil & Water, The University of Adelaide)
 A/Prof Nick Fazzalari (Tissue Pathology, IMVS)
 Dr. Rob Reid (Environmental Biology, The University of Adelaide)
 Dr. Timothy Cox (Molecular Biosciences, The University of Adelaide)
 Dr Anna Koltunow (CSIRO Division of Plant Industry)
 Mr. Ian Brown (Mechanical Engineering, The University of Adelaide)
 Ms. Kerry Jaeger (Secretary, DVCR, The University of Adelaide)
 Mr Jack Askew (Post Grad Student Rep, Anatomical Sciences, UA)

Publications

Diaz PI, Zilm PS & Rogers AM (2002) *Fusobacterium nucleatum* supports the growth of *Porphyromonas gingivalis* in oxygenated and carbon-dioxide-depleted environments. *Microbiology* 148, 467-472.

Grguric, BA (2002) Hypogene violarite of exsolution origin from Mount Keith, Western Australia: field evidence for a stable pentlandite-violarite tie line. *Mineralogical Magazine*, Vol. 66, No. 2, pg. 313-326.

Moghaddami M, Swart B, Reynolds P, Dierner K & Brown MP. Flt3 ligand expands dendritic cell numbers in normal and malignant murine prostate. *Immunology and Cell Biology* (2002), 80, 370-381.

If you would like to promote an upcoming meeting or your latest publication relating to microscopy and would like to have it listed here send the details to microscopy@adelaide.edu.au. We are also very keen to receive reprints of any papers you have published resulting from research performed at Adelaide Microscopy.

Diary Dates

Friday 18—21 April 2003 — Closed Easter Break
 Friday 25 April 2003—Closed ANZAC Day
 Monday 19 May 2003—Closed Adelaide Cup Day
 Monday 9 June 2003— Closed Queens Birthday
 July 2003 TBA—Seminar in conjunction with HVO

Call in for a discussion with our experienced team regarding any ideas you have regarding microscopy.