

WELCOME TO:

New Staff Members:

- **Dr Andrew Bowie**, Postdoctoral Research Assistant in ACROSS who commenced in 1 July, after 6 months with IASOS.
- **Mr Jarrod Coad**, Technical Officer in Hobart who commenced 8 August. Jarrod is a former BSc Honours student so is very familiar with the School.

New Students:

- **Mr Suraphan Powanusorn** (known as "A") has arrived from Thailand. He has a Bachelor of Engineering degree majoring in Chemical Engineering and will be undertaking a research project in as part of his MAppSc(Chemistry) degree.
- **Mid Semester Intake students in First Year Hobart:** Three students have joined Chemistry 1 this year at the beginning of second semester - first time offered at the School of Chemistry in Hobart.

FAREWELL TO:

- **Dr Yan Zhu** who returned to Zhejiang University, Hangzhou, in August after a one year stay as an honorary research associate working on ion chromatography with the ACROSS Group.
- **Owen Johnston** who completed his BSc Honours in July. Owen is off to Edinburgh to undertake a Masters course in brewing in Edinburgh.
- **Patrick Caldwell**, an exchange student from Warwick University, who spent time with the Honours Group working on a project with Dr Jason Smith. Patrick will tour Australia for the next 6 weeks before returning to the UK to continue his studies.
- **Shane Robertson** who withdrew from his Honours Course to take up employment with Tasmanian Alkaloids.

VISITORS

- **Dr Michael Lever** from Canterbury Health Laboratories, Christchurch, NZ, who is also associated with the University of Canterbury and the University of Otago, and Malina Storer, a PhD student at the University of Otago working in Dr Lever's laboratory, visited ACROSS to work together on separations of betaine derivatives by CE and CEC. At the end of August a technician from Dr Lever's laboratory, Chris McEntyre, will also visit ACROSS to develop their technical skills and theoretical understanding of the CE/CEC techniques as in late 2001, Dr Lever's laboratory purchased the first Agilent CE/CEC system for a clinical laboratory in NZ. Dr Lever's laboratory has 14 HPLC systems used for a variety of clinical services and a number of substantial medical research programs and they are hoping to replace a number of these HPLC methods by new CE/CEC methods to save both quantities of chemicals and time.
- **Leena Suntornsuk**, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Mahidol University, Thailand who visited ACROSS 7 - 18 July.
- **Dr Narumol Vachirapatama** came for a short visit to acquire practical skills in using Agilent CE/CEC system, which was recently acquired at the Thammasat University in Bangkok. Narumol will be working on determinations of a number of nutrients in a range of samples including water, soil, fertiliser, and plant tissues.

RACI YOUTH LECTURE



The annual RACI Tasmanian Youth Lecture series went off with a **BANG** (literally) around the state from 12th to 15th August. The lecture was titled "Green Chemistry" and was presented by Prof Roy Jackson and Mr Michael Clarke from the Centre for Green Chemistry, Monash University. The audience was kept on the edge of their seats by a series of explosions, bright lights and loud noises used to demonstrate a variety of green chemical processes such as catalysis, chemiluminescence and clean combustion. The lecture was enjoyed by over

By Melanie Denney



250 around the state. Thanks to everyone who came along and a big thanks to everyone who helped out- especially with the last minute bits and pieces.

CONFERENCES

Several people from the School recently attended the **20th International Conference on Organometallic Chemistry**, held in Corfu, Greece, 7-12 July. Oral presentations were given by **Vicki-Anne Tolhurst** and **Michael Gardiner**, while posters were presented by **Allan Canty**, Vicki Tolhurst and **Lauren Wise**. The Hobart contingent was the largest making the long haul flight from any University in the Southern Hemisphere! In addition to this, work partly carried out in Hobart was presented by Kingsley Cavell, now at Cardiff University, UK, and other non-presenting Hobart staff included **Brian Yates**, **Mel Denney**, **Dave Graham**, **Thomas Rodemann**, **Jun Wang**, **Allan Williams** and **Adele Wilson**. All of us found the time for work and/or holidays either side of the conference: Allan Canty attended smaller specialist meetings and visited colleagues in the UK, Vicki Tolhurst and Michael Gardiner opted for the ancient sites and beaches of southern Greece, while Lauren Wise left Corfu bound for a research visit at the Technical University of Munich, where she is working with Dr. Reiner Anwander until December on an aspect of her Ph.D. (the latest emails indicate that she is enjoying herself and becoming acquainted with all things southern German while the warm weather lasts: beer gardens, alps, castles,)

14th International Conference on Organic Synthesis

By Jason Smith

From 12-19 July, I attended the 14th International Conference on Organic Synthesis (ICOS) in Christchurch, NZ. The first question to ask is why were we in New Zealand in July, the same question the Wallabies were asking as they played the first leg of the Bledisloe cup in the freezing conditions. However, the weather was of little relevance as days one and two were full programs starting at 9am and finishing with poster sessions until 8pm. The quality of the student posters just seems to get better but the seminars for these two days was dominated by the big guns in Kishi (Harvard) Bill Roush (Michigan) Eric Carreira (ETH, Zurich) and KC Nicolau (Scripps) whose psychedelic technicolour slides were almost initiating epileptic fits. They did an amazing job at hiding the chemistry. KC was later remanded in custody, not for the slides, but failing to check that the small gift he was carrying onto the plane contained a very sharp letter opener. It is important to get that question right when asked did you pack your bags yourself. As the title of the conference suggests, most talks were dominated by total synthesis and Bill Roush was the stand out as the best with his elegant synthesis of the natural product Formamycin. The sun came out on Wednesday and most took the opportunity to take the Gondola ride up the Mountain for a view of Christchurch before the clouds came back in. The evening was topped off with the conference dinner at which **ALL** attendants had to do the Maori action dance (not the hauka) followed by all nations getting up to sing their national anthem. The Japanese delegates shone out with a rendition of Sukiyaki. The last day started with a lecture on some classical heterocyclic chemistry from Al Padwa (Emory) and concluded with Stephen Martin (Texas) who discussed new application for benzyne in the synthesis of Garyl glycosides. Just as the sun came out and the temperature rocketed into the teens it was time to board the plane and head home after a week in which a number of the best synthetic chemists had made the long journey down to talk about their chemistry but I think the ski fields of New Zealand were also a nice carrot as many made their way to Queenstown. In conclusion it was a very hectic but enjoyable conference where the calibre of the plenary and keynote speakers was such that it will probably be a long time before it is bettered or even matched in the Southern Hemisphere.

INTERACT

ACROSS was represented by **Prof Paul Haddad**, **Dr Mirek Macka**, **Dr Shusheng Zhang**, and **Dr Narumol Vachirapatama** at the multidisciplinary chemical conference INTERACT 2002 held at UTS, Sydney, 22-25 July. The four main streams at Interact were analytical, environmental, and pharmaceutical chemistry, and chemometrics.

Prof Haddad gave three talks: 1."Computer Optimisation in Ion Chromatography" by Paul Haddad, 2."Modelling the Separation of Six Opiate Compounds in electrokinetic Chromatography using a Sulfated-Cyclodextrin as a Pseudo-Stationary Phase" by **Philip Zakaria**, Mirek Macka and Paul Haddad, 3."Studies on Reproducibility and Recovery in Preconcentration of UV-Transparent Anions Using On-Capillary Open-Tubular Ion-Exchange Preconcentration and Elution with a Transient Isotachophoretic Gradient" by **Joe Hutchinson**, Mirek Macka, Nebojsa Avdalovic and Paul R. Haddad. Three posters: 1.Determination of gold thiosulfate and polythionates in gold thiosulfate leach solutions by ion-interaction chromatography by **John O'Reilly**, **Greg Dicinovski**, **Matt Shaw**, Yasuyuki Miura and Paul Haddad, 2.Modelling of retention in zwitterion ion chromatography by **Helmy Cook**, Tetsuo Okada and Paul Haddad, and 3.Organic analysis by ion chromatography: Determination of pesticides by anion-exchange using suppressed conductivity detection by **Zhu Yan**, **Wang Fang**, Mou Shifen, Paul Haddad.

Dr Macka gave a talk on "Photometry performed on optically opaque samples using a portable light-emitting diode photometer" by Mirek Macka, **Samra Tulumovic**, **Andrew Dick** and Paul Haddad.

Shusheng Zhang presented two posters: 1.Preparation and Characterisation of Double Layer Latex-Coated Columns for Open-Tubular Capillary Electrochromatography and In-Line Preconcentration of Cations by Shusheng Zhang, Mirek Macka and Paul Haddad; 2.Separation of Alkali, Alkaline Metal and Ammonium Cations by Non-aqueous Capillary Electrophoresis under Weakly Basic Conditions by Shusheng Zhang, Mirek Macka and Paul Haddad.

Narumol Vachirapatama presented her results acquired during her recent stay with ACROSS in her talk "Determination of Vanadium As 4-(2-Pyridylazo)-Resorcinol-Hydrogen Peroxide Ternary Complexes by Ion-

Interaction Reversed-Phase Liquid Chromatography" co-authored by Narumol Vachirapatama, Greg Dicoski, Ashley T. Townsend and Paul Haddad.

Dr Andrew Bowie has been invited to participate in an international workshop on the "Certification of Iron in Seawater" organised under the auspices of the Scientific Committee on Oceanic Research (SCOR) and the International Union of Pure and Applied Chemistry (IUPAC). The meeting, which will take place in San Francisco this coming December, is the latest in a series of initiatives designed to standardise sampling and analytical procedures and conduct analytical intercalibration exercises for the determination and speciation of iron in seawater. The Australian Academy of Technological Sciences and Engineering has awarded Andrew a bursary to support his attendance at the workshop.

SLEEK GEEKS PLAY TO SELL OUT CROWD

Triple JJJ personalities (and scientists) Dr Karl Kruszelnicki and Adam Spencer kicked off their 2002 SLEEK GEEK Tour in Launceston on Friday, 9 August to a packed Albert Hall. The one hour show highlighted the humorous, if not bizarre, nature of various scientific reports, including an idiot who swallowed 206 bullets, a boy scout who made a nuclear device and a Northern Territory man who was bitten 8 times on his left hand by a King Brown snake (the right hand was OK - he was holding a stubby in that hand). Dr Kruszelnicki also publicly presented the findings of his major scientific study into belly button fluff (BBF) with extensive studies over the past 12 months determining the composition and origin of BBF.

It was excellent to see a great turnout in Launceston and we are sure the two Geeks inspired many of the kids (and possibly a few adults) present to take an interest in science.

Congratulations must go to Wayne Goninon for convincing Adam and Karl to visit Launceston, especially in view of Dr Andrew Seen's comments about Launceston at his School seminar earlier this year.

CHEMISTRY CLUB

By Alison Radford



The Chemistry Club's active social program of events is in full swing for semester two. The Pub Crawl attracted a rare crowd and after losing most of their numbers they decided to slump in the corner at Bridies all night. However, this left Dave Graham wandering around Salamanca in his very trendy Chemistry Club T-shirt!! Sorry Dave!! The Brew Off was a blast with Michael Batten taking out the Best Light Beer, Best Label and Best Overall Entry with his "Californian Blonde". Congratulations also go to Dave Nielsen for Best Dark Beer/Stout and Best Other Beverage (ginger beer) and to Thomas Rodemann for Best Wine. Thank you to all those who entered and came along on the night.

The biggest event to happen for the Chemistry Society 2002 is the MEXICAN NIGHT to be held on Friday 23rd August starting at 6.00pm for dinner at 7.00pm. Entry is \$10 and includes dinner and a free corona. Beer, wine and margaritas will be available for \$1.50 and tequila shots for \$1. Seating is limited and there will be no door sales, so get your tickets early if you wish to attend. I hope to see all of you there - especially all the lecturers, it's a great opportunity to persuade all the undergrads to do honours!!

I'll see you there...

NEWS OF PAST STUDENTS

Jeff Mason called in on 3 July to collect a few things. Since working at Tasmanian Alkaloids on completion of his Honours last year, he moved to Queensland and has been working for Herron Pharmaceuticals. He now has a new position as a research assistant in biotechnology with Alchemia in Brisbane.

Dr Kai Ling Ng travelled back from Singapore to accept her PhD at the graduation ceremony in Hobart on 10 August and spent a few days with ACROSS.

THANKS TO SEMINAR SPEAKERS

Professor Janusz Pawliszyn, University of Waterloo, Canada
"Theory and Practice of Solid-Phase Microextraction."

Dr Evan Peacock, Central Science Laboratory,
"NMR at the Central Science Laboratory, Applications and Solutions"

Conference Seminar

Dr Michael Gardiner, "Tailoring the Calix[4]pyrrole Framework for Applications in Organolanthanide Chemistry"

PH Final Seminars

Cameron Johns, "Indirect Photometric Detection in Capillary Electrophoresis"

Christian Narkowicz, "Antiparasitic Compounds from Tasmanian Marine Organisms"

Postgraduate Introductory Seminars

Kirsty Hawkes, "Imidazole and Thiazole Based Transition Metal Carbene Complexes"

Tim Jordan, "Where There's fire, There's Smoke"

Daniel Southam, "Minimisation of Nutrients from Waste Streams"

HALL OF FAME (AKA ROGUES GALLERY)

Noticed any changes to the Hall of Fame in the Mezzanine of the Chemistry Building in Hobart? There are some additional faces most of whom you may not recognise. Remember Mr B J F Ralph (Lecturer 1936-1945), Mr G C Israel (Senior Lecturer 1938-1952), Dr L E Smythe (Senior Lecturer 1949-1955), Dr J A Allen (Senior Lecturer 1952-1954) and Dr F H C Kelly, Reader (1952-1968)?



Our thanks to Dr Peter W Smith who delved into the University's Archives - quite a challenge - and tracked down 5 staff missing from the top row. Not only did Dr Smith locate them, he obtained photographs from the era when they were teaching at the School.

Our thanks also to Peter Dove from CSL who rearranged the gallery.

Dr Peter W Smith



*Don's new
piece of
scientific
equipment*



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