“Notes from the Head’s Desk” is a convenient, informal information bulletin to keep people in the School of Chemistry informed of what’s happening on a regular basis. For any information to be included in “Notes from the Head”, please ensure it is received by Glenda Oliver (glenda.oliver@sci.monash.edu.au) by the last Friday of each month.

1. Chemistry People in the News

Congratulations to:

- **Mehdi Khiavi** who has been awarded the degree of Doctor of Philosophy for his thesis, *Application of vibrational spectroscopy and atomic force microscopy in blood and malaria research*.

- **William Gee** who has been awarded the degree of Doctor of Philosophy for his thesis, *Synthetic strategies towards water-stable, water-soluble lanthanoid cage clusters*.

- **To all the PhD graduates** of the ceremony held on Thursday 21st October 2010. They were:
  
  Jacinta Bakker  Gianluca Bernardini  Anjali Bhagwat  Michael Blair  
  Janease Graham  Kevin Fraser  Robyn Overall  Pushpamalar Vengidesh

- **Prof Alan Chaffee** who has been promoted to the position of Professorial Fellow under the special professorial appointments process for 2010-2014.

- **Professor Leone Spiccia and Udo Bach** who along with Yi-Bing Cheng (Materials Engineering) were part of a larger consortium to receive $13M+ over three years from the Victorian Science Agenda Strategic Projects Scheme and the Australian Solar Institute. Partners include BlueScope, CSIRO, Securency, Innova Films and Bosch.

- **Professor Alan Chaffee** who has received over $1.25M over the next three years from the Victorian ETIS Renewable Scheme ($411k with **Prof Roy Jackson**) and ANLEC R&D Alternatives and Fundamentals Program ($844k with Paul Webley)

- **Professor Cameron Jones and Dr Andreas Stasch** who have had their latest work on magnesium(I) chemistry published in *Nature Chemistry* (2010, 2, 865-869). The paper details how magnesium(I) dimers can be used as soluble models for the study of the reversible addition of dihydrogen to magnesium metal.

- **Corrine Kluvers** for an ECR award from the Peptide Users Group

- **Dr Martin Duriska** for being awarded the Australian Synchrotron Thesis Medal.

- **Dr Grant Webster** for his special commendation for the Australian Synchrotron Thesis Medal.

- **Lisa Candish** as (finally) the recipient of the 2009 Roy Jackson Award.

- **The Honours student class of 2010** for making it through the year and the defences!
The following people who were successful in the recently announced ARC Discovery Project and Linkage grants:

A/Prof Phil Andrews    Prof Peter Junk    Prof Cameron Jones/Dr Andreas Stasch
Prof Don McNaughton   Prof Keith Murray   Dr Kellie Tuck
Dr Angus Gray-Weale    Dr Perran Cook     Dr Udo Bach

Also to ARF and QEII recipients who will join us next year:

Dr Andy Ohlin (QEII)  Dr Suzanne Neville (ARF);
and to Dr Chuan Zhao (ARF), who has just left the School to take up a lectureship at UNSW.

Welcome to the School:

Professor Philip Marriott and his group:
Dr Blagoj Mitrevski
Dr Zhong-Da Zeng
Grace Wu (PhD)
Sung-Tong Chin (PhD)
Bussayarat Maikhunthod (PhD)
Lucy Huang (PhD)
Boon Kim Tan (PhD)
Grace Gao (visiting PhD from Peking Uni)
Dr Margaret Kowalczyk (visiting researcher)
Dr Kim Shepherd
Dr Jin-Young Kim (visitor from the Supreme Prosecutor's Office in Seoul)

Welcome also to:
Dr Matthias Hilder, Research Fellow with Prof Doug MacFarlane
Dr Meng Tao Ma, Research Fellow with Prof Cameron Jones
Dr Pradeepan Periyat, Visiting Academic/Marie Curie Fellow with Prof Leone Spiccia
Dr Christian Schenk, Visiting Scholar with Prof Cameron Jones
Tobias Gustmann, Occupational Trainee with Dr Angus Gray-Weale
Josephine Zeisig, Occupational Trainee with Dr Angus Gray-Weale
Julia Krahl, Occupational Trainee with Dr Angus Gray-Weale
Antonino Raneri, Visiting Scholar with Prof Leone Spiccia and A/Professor Tony Patti

Farewells

Assoc. Professors Ian McKelvie and Richard Morrison, and Miranda Phelan, Gordana Kitanovic and Victor Deguzman. Each is a long-serving member of the School (over 120 years service between them) and have played an important part in the development of the School over the past two decades. While Richard, Miranda, Gordana and Victor’s last day is officially the 30th November, Ian will be around until the end of the year. Please take some time to drop by and farewell them.

Ian McKelvie joined the School as a lecturer (level B) on 1 July 1990 after a decade at the Chisholm Institute of Technology. His interests are in the area of flow injection analysis, the development of analytical instrumentation for wastewater and environmental monitoring and the biogeochemical cycling of nutrients in aquatic systems. He was one of the foundation members of the Water Studies Centre and in fact, is the last of the tenured staff from the Chisholm merger. During his career, Ian has held major grants including Discovery and Linkage project grants and consistent grant funding from
the Mt Buller Resort Management Committee. He is on the editorial board of three international journals *Talanta*, *Analytica Chimica Acta* and *Journal of Flow Injection Analysis* and is coauthor on an Elsevier book entitled *Advances in Flow Injection Analysis and Related Techniques*. Ian McKelvie is held highly in the area of analytical chemistry, being the recipient of the 2004 Analytical Chemistry Division Medal of the RACI, the 2008 JAFIA Award for Science from the Japan Society for Analytical Chemistry, for “Research in Flow Analysis Techniques for Environmental Monitoring and Research”, and holder of the Max O’Connor Lectureship, La Trobe University, 2009. Ian was also a strong advocate for our teaching program, especially in the area of environmental chemistry. He is an engaging lecturer who inspired many students to carry on studies in chemistry. His leadership over the past decade has been as Associate Head Education, Honours coordinator and Deputy Head of School. Ian was the inaugural Deputy Associate Dean Honours for the Faculty of Science. It has been a pleasure to work alongside Ian and to gain his counsel on all sorts of matters.

**Richard Morrison** joined the School as a lecturer (level B) on the 3 December 1984 and has interests as diverse as analytical applications of lasers, electronic spectroscopy, mass spectrometry, development of new scientific instrumentation, combustion processes and ion optics. However, it is in the area of Education leadership for the School over the past 15 years that Richard will be mostly missed. Richard has been a significant figure in the School’s achievements in teaching, reaffirming the importance of excellent teaching and the benefits of such, in providing an example of how engagement through creativity can lead to a positive learning experience. His activities in the area of education and outreach are only surpassed by his engaging and innovative approach to teaching, resource development and curriculum design. His work, in particular, at engaging budding students towards chemistry (both nationally and internationally) has been exceptional and is a real focal point of his tenure. As a result of his excellence in teaching and innovative mind-set, Richard spent two terms as first year coordinator (1997-99 and 2008-2010), an extended term as Associate Head Education, and was awarded the 2010 Dean’s Excellence in Teaching Award. Externally to the School, he was a Chief Assessor for VCAA, undertook a series of Thailand Training Workshops in Chemistry, the CEA Instrument Roadshow to country Victoria, and more recently the design of a ‘Remote Spectroscopy Lab’ in which student groups can experience scientific discovery by remote accessing spectroscopic equipment for research. He is also the Faculty Liaison officer for the John Monash Science School, a position that has seen the development of JMSS undertake a smooth transition from concept to reality. Richard’s ability to raise significant funds to achieve his educational goals is most likely unrivalled within the Faculty and a real benchmark for the future.

**Miranda Phelan** joined the School on 18 January 1982. As I see it, three passions have driven her at Monash over the past 28 years; her desire to see students succeed and to have an enjoyable experience in the first year chemistry laboratories, health and safety and, of course, her Union involvement. Miranda has really made the first year laboratories her own and despite the hectic nature of running labs for over 160 students per session and the poor conditions of building 20, she has successfully made sure the School puts its best foot forward in first year with the resources it had at its disposal. Her leadership has also extended to University OHS policy committees, student equity and her senior role with the NTEU. There is probably no other person in the Faculty who has dealt with the total mix of students as Miranda has on a day-to-day basis.

**Gordana Kitanovic** joined the School on 15 January 1990. In difference to first year, much has changed over the past 12 years in second year laboratory. The last iteration of this change occurred this year with a re-rationalisation of our second and third year units. Throughout her period in charge of the 2nd year labs, Gordana has always made time to ensure the necessary equipment, lab manuals and reagents are available well in advance so that each lab program could run seamlessly. There never appeared to be much out of place which allowed the teaching teams to always focus on their roles. The
sign of a good manager is someone who doesn't share the limelight, but works behind the scenes to make sure all activities run smoothly. Gordana filled this role perfectly.

**Victor de Guzman** joined the School on 24 August 1987 as a senior technical officer at STO (A) level. In 1988, he was made the Schools Chromatography Services Manager. In this role, and over his 20+ year service, Victor trained hundreds of students and postdocs in the art of HPLC and GC. His activities stemmed further to training hundreds of high school students through the VCE workshops run by the School. In later years, Victor also spent part of his time running the Schools GCMS. We are now set up well in the area of chromatography, in part, as a result of Victor’s dedication to the area. Over the past year he had also taken on the important role of safety officer and has made a number of useful initiatives with which the School will continue to develop.

On behalf of the School, I would like to wish each them all the very best for the future and whatever it holds. As always, the School will continue to value its relationship with Miranda, Gordana Richard, Ian and Victor.

### 2. Events and Outcomes

The photo below shows current second year Spectroscopy and Analytical Chemistry students presenting their recent Moot Court cases. The exercise was conceived and developed by Rod Hall (His Honour), Toby Bell and Ian McKelvie, and provides students with the opportunity to present and evaluate the validity of experimental data that they have obtained during semester, in one of three curiously titled cases. These are "The Unfortunate Case of the Overly Intoxicating Château de Carton Classic" (GC ethanol determination), "Who shot Thruppence Moroni?" (gunshot residue by UV-vis spectrophotometry) and "Swimming with concrete boots" (analysis of Fe in cement by AAS).

Below is a scene from the Boardroom scenarios that were used to finish CHM3952. The concept was again conceived by Rod Hall, Toby Bell and Chris Thompson, and involved students analysing and presenting their experimental data from the lab in various scenarios, namely: **Scenario one: To the Board of Directors of the Gunns and Gordon Gecko Group:** Is greed good? Should the construction and operation of a desalination plant in a highly sensitive environmental area go ahead based on the analysis of chloride concentrations from a trial desalination plant? **Scenario Two: To the Board of Directors of Forty Screw Metals:** Mining the Remote WA province of Fedora. Should a mining proposal to mine an ore body containing Fe and Zn proceed? If the wrong decision is taken and the mine turns out to be unprofitable the highly leveraged company will be forced into receivership. **Scenario Three: The Ten Cousins Football Drug Fiasco.** Ten players on a country football team (The
McKelvieville Maulers) have been charged and found guilty of drug cheating after testing positive for high levels of caffeine in their urine samples. **Scenario Four: To the Board of Directors of Pure Energy Enterprises:** Sabotage or coverup? Roads across Australia have been thrown into chaos following a series of mysterious breakdowns where car, truck and bus engines suddenly stop and can’t be restarted. Has your competitor Dark Energy Inc. systematically contaminated fuel supplies?

Many thanks to **Assoc Professor Tony Patti** for organising the recent Monash A*Star symposium. Chemistry was well represented including a number of presentations demonstrating the breadth of research being undertaken within the School.

The **annual 2nd year celebration and awards lunch** was held on the 14th October in the general chemistry laboratory located in building 23. As you can see from the photo, this was probably our best turnout ever, with representation from all units within semester two. Congratulations go to **James Walter** who was the recipient of the Barry Hart prize and **Samantha Pellegrino** who was awarded the Bryan Gatehouse prize for second year laboratory. Congratulations also to Sue Tan, Sam Pellegrino, Caroline Aile, David Chandler, Alison Chong, Jo Kan, Tze Hing, Eunice Ooi, Douglas Russell, Matthew Zygorodimos, Alex Young, Josh Grubb, Aeshan Kularatne, Daniel Zerafa and Cheng Siew who took out book voucher awards for the best results in CHM2911, CHM2922, CHM2942, CHM2962.
Last Thursday and Friday the Centre for Green Chemistry held their annual workshop, which included over 60 participants including members of PACIA and EPA. The event highlighted the level of broad activity being undertaken in the Centre. Below is an action shot taken during one of the talks.

3. Upcoming Events and Opportunities

MCS Seminar:

The last MCS lecture for 2010 will be held on Wednesday December 8th at 4pm in lecture theatre S3. Three home-grown, talented scientists will talk about their research (20 minutes each). Come armed with your questions, applause and fruit... Be prepared to be dazzled by their brilliance!

Anthony Chesman - Dicyanonitrosomethanide - is there anything you can't do?
Bianca van Lierop - Dicarba analogues of insulin
Danielle Martin - From lasers to electron accelerators

Drinks will follow in the foyer and we will go to a local restaurant for dinner. All are welcome.
School Seminars

Monday 29 November, 12:00 pm, Bruce West Seminar Room, Prof. Andreas Grohman, Technical University Berlin, Germany, title to be advised.

Thursday 9 December, 12:00 pm, Bruce West Seminar Room, Prof. Pat Unwin, Warwick University, UK, Electrochemical Microscopy.

Friday 10 December, 12:00 pm, Bruce West Seminar Room, Dr. Mark Newton, Warwick University, UK, Diamond Electrochemistry.

- **OZOM6 – the 6th Australian Organometallics Discussion Meeting** to be held at the University of Tasmania, Hobart, 17-20 January 2011. Please visit the website for the meeting to obtain full details: www.ozom6.org.

- **14th Asian Chemical Congress (14 ACC)** to be held in Bangkok, Thailand 5-8 September 2011. Online abstract and Young Chemist Awards submission is open until 20 January 2011. Please visit the congress website for details: www.14acc.org.


- **2010 State of the Union address** will be held 12-1pm Tuesday 7th December.

Quote of the month:

“The only constant is change”

Heraclitus (535-475 BC)