



The School of Chemistry, Nov. 2011
Photo credit: Steve Preece

Chemistry@UNSW: Continued growth, continued success...

Welcome to the latest issue of F10NA, coming to you in the shadow of the International Year of Chemistry, which provided a chance for some of our readers to re-establish old acquaintances, or to make new ones, at our recent IYC2011 Alumni Dinner. Around 150 friends of the School came together on 26 October to celebrate Chemistry, the School and to catch up on lost time. It was a pleasure to see so many people having the School as the link, taking time out to come together and I hope to see many of you again at future alumni events.

The high quality of staff and students within the School has once again been recognised with the award of a number of prestigious prizes. The RACI Gala Dinner in November was a good night for the School with Prof. Justin Gooding taking the H.G. Smith Memorial Medal for making the most significant contribution to an area of chemistry in Australia over the last ten years and Dr. Mohammad Choucair the 2011 RACI Cornforth Medal for the best thesis in Chemistry in Australia in 2010. A strong presence at next year's event is guaranteed following the announcement on 2 December that Dr. Pal Thordarson is the recipient of the 2012 Le Fèvre Memorial Prize, awarded by the Council of the Australian Academy of Science in recognition of outstanding basic research in chemistry by an early career researchers (<40 yrs. old); it is awarded at the RACI event in the year of award.

Please send all comments & suggestions to the editor A/Prof John Stride
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Our two new appointments, Drs. Luke Hunter and Leigh Aldous have hit the ground running since their arrivals in June and September 2011, respectively. Luke joined us from the University of Sydney and was awarded an ARC Discovery Early Career Researcher Award (DECRA) in November. Other staff had continued success in obtaining external research funding (see inside for details) and we have every confidence that 2012 will see more recognition of the research excellence within the School.

Success is not just recognised beyond the walls of UNSW, staff promotions and awards made on merit are also crucial not just in career development, but in recognising the continued hard work and continued success of individuals. This year Dr. Marcus Cole won promotion to Associate Professor as of 1 January 2012 and Professor Justin Gooding was promoted to Scientia Professor, the highest honour bestowed upon staff at UNSW in recognition of research excellence. The tireless work of Dr. Ron Haines in undergraduate teaching was acknowledged with a University Award for teaching excellence in 2011, his enthusiasm and desire for teaching has benefitted UNSW chemists over many years.

Finally, the School finds itself in excellent shape largely due to the guiding hand of the Head of School over the last five years, Professor Barbara Messerle. The University has acknowledged this with the award of the 2011 UNSW Staff Excellence Award for Excellence in Senior Leadership to Barbara and her appointment as HoS for a second term.

John Stride, Director of Research

UNSW Open Day 2011

Open Day on Saturday 3rd September was a huge success drawing large crowds both into the marquee thanks to our student volunteers and into some of the teaching labs, thanks to the School tours run at regular intervals throughout the day by our technical staff Toby Jackson and Hitendra Gopal. Ken McGuffin, Naresh Kumar and Kasey Wood did a great job organizing an enthusiastic team of 30 student volunteers to help man the tables in the marquee on University Mall, demonstrating various experiments and explaining the research posters to members of the public (how glow sticks work, the fuss behind CO₂ etc.). The face-painting artists proved a great success, with many choosing to have molecules painted on their faces, including the Head of School, Prof. Barbara Messerle. About 500 purple School of Chemistry showbags containing School and Faculty of Science leaflets, pens, post-it notes and glowsticks were handed out to the enthusiastic crowds. Alumnus Dr. Mandar Deodhar, now at Pharmaxis, was also on hand at the marquee and we thank Anthony Kasih from E-Nose who was there to explain how the device works. Towards the end of the day Vice Chancellor Professor Fred Hilmer and his wife also dropped by the marquee, having heard of the wonderful things on show; they subsequently left with a showbag and smiles!



Photo credit Lucy Stride

Vice-Chancellor Prof. Fred Hilmer enjoying his visit to the Chemistry marquee during UNSW Open Day, School of Chemistry, June Griffith coffee cup in hand!



Photo credit: Tim Knox

2011 School of Chemistry Alumni Dinner

Wednesday 26 October 2011 marked the day that UNSW School of Chemistry chose to celebrate the UNESCO International Year of Chemistry by hosting an Alumni Dinner. Guests included current and former academic and general staff, students and their spouses, as well as our current visiting committee. Notably, Dr Alan Russell (a former student of Prof Stephen Angyl) travelled the furthest, coming from the US in order to attend.

Celebrations began in the early evening with an optional school tour with around half of our 150 guests taking the opportunity to see the new home to the School. For many, the former chemistry building, then known as the Heffron Building, now home to the Australian School of Business, would have been more familiar, but all agreed that the new facilities in the Dalton and F10NA Buildings provide clean, bright, spacious and well-equipped labs, although it was clear that there were many fond memories of the then "rough and ready" Heffron labs!

As MC for the evening, Scientia Prof. Justin Gooding ensured that we kept to our schedule, with speeches by current HoS Prof Barbara Messerle, UNSW DVC(Research) Prof Les Field (also a chemist), the Dean of Science Prof Merlin Crossley, School alumnus and CEO of the ARC Prof Margaret Sheil, and the Secretary General of the International Union of Pure and Applied Chemistry, our very own Prof David Black.

Highlights of the evening included a much appreciated visual trip down memory lane, in the form of a slideshow depicting the history of the school, using some of the thousands of photographs Prof Harry Goodwin painstakingly scanned from the School's archives, largely pictures of labs, staff, students and buildings. In keeping with modern times, guests were treated to short Skype videos sent by Prof Sir Harry Kroto (Florida State, USA) - former Howard Lecturer and Nobel Laureate, Prof Harry Gray (Caltech, USA) - former Dwyer Lecturer, Prof Ben Feringa (Groningen, Netherlands) - former Andrews Lecturer, as well as UNSW alumnus Dr Elicia Wong; all of them wishing us well for the night.

As well as organizing these videos, Dr Graham Ball, put together a booklet of letters of support acknowledging the role that chemistry plays in society. Well wishers included Her Excellency Ms Quentin Bryce AC Governor-General of the Commonwealth of Australia, the Prime Minister, the Hon Julia Gillard, Leader of The Opposition, the Hon Tony Abbott, the Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr, Australia's Chief Scientist, Professor Ian Chubb and the local federal member of Parliament and Minister for School Education, Early Childhood and Youth, The Hon Peter Garrett AM. The evening ended on a more light-hearted note, with every guest being invited to choose their favourite element in the form of a cupcake from two edible periodic tables.

We would also like to thank sponsors Air Liquide, RACI, Bruker, and Comp Now for their generous donations towards the dinner and the student volunteers who gave their time freely. The evening was captured beautifully by photographer by Tim Knox.

The Alumni Dinner Committee:

Ms Jodee Anning, Dr Graham Ball, Prof David Black, Prof Barbara Messerle, A/Prof John Stride, Mrs Lucy Stride, (also thanks to A/Prof Naresh Kumar who helped organize the school tour).

Grant news

The School picked up a number of grants in the rounds announced in November: Drs. Pal Thordarson and Chuan Zhao were awarded a DP of \$315k for '*Photochemical and electrochemical control of redox enzyme cascades*' and Prof. Justin Gooding led a NHMRC grant of \$440k for '*A nanomedicine strategy for detecting and modulating protease activity in vivo*'. Meanwhile, new appointment Dr. Luke Hunter was awarded a DECRA of \$375k, entitled '*Selective fluorination chemistry: a tool for creating bioactive, shape-controlled peptides*', which he is currently seeking to transfer across from the University of Sydney. Emeritus Professor Michael Paddon-Row won an ARC DP with his collaborator A/Prof. Michael Sherburn of ANU and Prof. Michael James of ANSTO, a Visiting Professor of the School, also won an ARC DP in association with Profs. Paul Burn and Ian Gentle.

Research excellence awards

The research excellence of School members has been acknowledged with 3 recently announced prestigious awards. Firstly, Dr. Pal Thordarson has been awarded the 2012 Le Fèvre Memorial Prize by the Council of the Australian Academy of Science, recognising outstanding basic research in chemistry for early career researchers (<40 yrs. old) - he will be formally awarded the Prize at the 2012 RACI Gala Dinner. This year's Dinner saw Prof. Justin Gooding pick up the 2011 RACI H.G. Smith Memorial Medal for making the most significant contribution to an area of chemistry in Australia over the last ten years and Dr. Mohammad Choucair pick up the 2011 RACI Cornforth Medal for the best thesis in Chemistry in Australia in 2010, for his thesis entitled '*Novel Chemical Pathways to Carbon Nanostructures: Graphene and Fullerenes*' under A/Prof. John Stride.

MedChem Symposium

The highly successful Medicinal Chemistry Research Symposia series continues, with the 4th meeting held in conjunction with the School of Medical Sciences on 16th November 2011; a remarkable attendance of more than 100 researchers from key UNSW centres, the Schools of Chemistry and Medical Sciences and the Lowy Cancer Research Centre, came together to discuss latest findings and to exchange ideas. Researchers from other universities also attended the symposium. There were 11 oral presentations and more than 20 posters representing the wide range of research interests and expertise in the MedChem sphere currently active at UNSW. A \$500 sponsorship was secured from the Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT) which was used for oral and poster prizes.

The next symposium will be held in June 2012.

The RACI NSW Organic Chemistry Group Symposium

The 32nd Annual One-Day Organic Symposium was held at UNSW on 30 November 2011. The symposium was very well attended with delegates from ANU, Sydney Uni, Wollongong Uni, UNSW, ANSTO and other research organisations. Prof Barry Trost (Stanford University), A/Prof Phillip Chan (Nanyang Technological University), and Dr Andy Stamford (Merck) gave impressive plenary lectures along with some outstanding student presentations. The symposium showcased a diverse range of organic chemistry research areas and recent advancements in the field. The next symposium will be held at UNSW in December 2012.

Organising Committee: A/Prof Jonathan Morris, Dr Jason Harper, Dr Luke Hunter, A/Prof Naresh Kumar

Visit of Nobel Laureate Prof. Martin Chalfie

2008 Nobel Prize in Chemistry winner Prof. Martin Chalfie of Columbia University visited the School on 6th December during his first visit to Australia. He gave an illuminating and entertaining lecture entitled '*Green Fluorescent Proteins: Lighting Up Life*', detailing some of the work that he and co-workers have performed on nematodes investigating nerve cell development and function, introduced by the Dean of Science at UNSW, Prof. Merlin Crossley. In all of this, highly fluorescent labels made it possible to actually see the chemistry in action and have revolutionised biological imaging since his seminal 1994 Science paper '*Green fluorescent protein for gene expression*'. His visit brought together many researchers from across campus and was a wonderful way to round off the year; he was particularly interested in entering into dialogues with current students, demonstrating his keen interest across fields within chemistry and biochemistry.

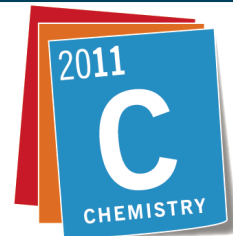
Many thanks to A/Prof. Naresh Kumar & Dr. Kasey Wood for organising Martie's visit.



Martie Chalfie in action with his GFPs during his seminar at UNSW

Professor David Black

The International Union of Pure and Applied Chemistry (IUPAC) initiated the plan, and gained United Nations approval for The International Year of Chemistry (IYC 2011). Whilst the Year has now concluded, the real work has only just begun!



International Year of **CHEMISTRY** 2011

You will have heard quite a lot about the events of IYC, and about the celebration of the wonderful achievements of chemistry. United Nations designation of the Year was based on the long-term UN program on sustainable development and the capacity of chemistry to contribute to that program. You will recall that the four main goals listed in the prospectus were to:

- increase the public appreciation of chemistry in meeting world needs
- increase interest in young people in chemistry
- generate enthusiasm for the creative future of chemistry
- celebrate the 100th anniversary of the Mme Curie Nobel Prize and the 100th anniversary of the founding of the International Association of Chemical Societies (which led to the formation of IUPAC in 1911).

The now familiar logo has appeared all around the world in the form of the lapel pin and also in many publications in journals and magazines. The specially designed IYC ties and scarves were a great hit, but perhaps not so widespread. The tie and scarf feature a montage of the motto "*Chemistry - our life, our future*" in forty-four different languages, with the words in gold on a blue background: the scarf has a crimson border. The motto itself has not been as widespread as we would have wished, but is very important as it neatly captures the omnipresence, the scientific centrality, and the undeniable importance of chemistry. The IYC 2011 web site <<http://www.chemistry2011.org/>> has recorded and monitored well in excess of two thousand specific international activities, but I am sure that there have been many more that failed to be logged on to the web site.

The most important reason for IYC 2011 was to encourage engagement with the public about chemistry. A very strong educational message was sent out to the general public, and that needs to continue.

During the year there were three "cornerstone" events. The year started with the Launch Ceremony in Paris in January, and that set the tone for the theme about sustainable development, and how that is impossible to achieve without chemistry. The theme was developed at the IUPAC Congress and World Chemistry Leadership Meeting in San Juan in August. At the beginning of December, the so-called Closing Ceremony was held in Brussels. Here the theme concentrated heavily on the chemical industry, and was a celebration of the famous Solvay conference that was held in the Metropole Hotel in Brussels in 1911. The outcome of this meeting was the formation of an Association of Chemical Societies, which was designed to find agreement and cooperation on an international basis for all chemical activities. This Association led to the establishment of IUPAC in 1919.

It is worth saying something in more detail about the superbly organised closing ceremony. Thirteen young chemists from a variety of chemical companies were brought together to discuss their vision of the world in 2050, and how chemistry would play a role in achieving a world in which nine billion people could live with clean water, good food, and sustainable energy. These young people will possibly emerge in years to come as industry CEOs and consequently the future is in excellent hands. There were also plenary lectures from current CEOs, a Nobel Laureate, and an address from the Belgian prince. There was a sense of great enthusiasm about the chemical industry. Indeed, while Europe is suffering at the trembling hands of politicians and financial managers, there is no doubt that their chemical industry is doing extremely well, so that is an excellent sign for the future.

The closing speech came from the Director General of UNESCO, IUPAC's partner throughout the year. He actually refused to "close" the year and declared the "opening" of the next phase in the future of chemical discovery and application through the chemical industry. As Alex Scott put it in "Chemical Week" -

"Don't think for one minute that the International Year of Chemistry (IYC) has been pushed off into the long grass. The legacy of IYC is set to continue well beyond this year's organized series of chemistry events and discussions; leading chemical companies have pledged to continue to talk out more about all the good stuff that chemistry can do; collaborate more closely with academia and policy makers; and increase their programs to engage with students. IYC, additionally, has been the catalyst that has enabled a new connection with many policy makers who now understand that chemistry really is the enabler for a better and more sustainable world. There is much to look forward to."

Chemical Crystallography at UNSW: The first 20 years

Neville C. Stephenson OAM, FRACI
Emeritus Professor



I joined UNSW in 1954, the year that Pauling received his first Nobel Prize. Chemical crystallography was gaining momentum as scientists used diffraction methods to solve the mysteries of molecular configuration and crystal structure. The early equipment at UNSW consisted of a copper tube and powder camera, located in Ron Werner's physical chemistry department on the first floor of building 6 at the Harris Street end of TAFE. There was also a powder diffractometer in the School of Physics, which was made by Jack McConnell to examine wood fibres. However, with the rapid growth of R. S. Nyholm's internationally recognised organo-metallic group, involving A.L. Martin, B.N. Figgis, Rodger Irving, Harris and Livingstone, Craddon, Sutton et al., now compounds were being made daily and crystal structures were needed to determine stereochemistries. The X-ray equipment was quickly augmented with molybdenum and cobalt X-ray tubes, a Super Precision camera and a Nonius integrating Weissenberg camera together with film measuring devices and two boxes of Beevers and Lipson strips. Gordon Barclay returned from a study period with Sir Gordon Cox at Leeds, UK, and soon we had postgraduate students enrolled in Ph.D. programs. Early candidates were Hoskins, Kennard, Taylor, Stephens and Walton.

Then came the big move to Kensington in 1962. Blue Barclay and I, together with L.W.O. Martin, had designed the new X-ray laboratory to be located on level 1 of the Heffron building. It consisted of five offices, a dark room, a microscope and crystal mounting area and three X-ray generator alcoves. This area soon became too small with the influx of Ph.D students – Val Duckworth, Mary McPartlin, Elizabeth Goldschmied, Robin Charlton, and many users such as Les Power, Peter Fielding and final year students. A significant event occurred in the 1960's. The newly formed ARGC was inviting applicants for research funding. Bob Walsh, a board member and professor of medicine at UNSW, addressed staff about this matter and cautioned against applications for major equipment. But a single crystal X-ray diffractometer was just what our chemical crystallography group needed, and in order to give weight to the proposal I suggested that Jack McConnell and I submit a joint application. We also asked for a Professional Officer to run the thing and stipulated a three year funding commitment. Our prayers were answered and we were awarded the largest grant given to Australian Physical Sciences that year.

Then the problem of location arose. Professor Milner wanted it in the Physics building and Professor Mellor in Chemistry. Common sense eventually prevailed, but at a cost. The first floor analytical lab in the Dalton building, which was initially intended to house Jim Green's Nuclear and Radiation Chemistry Department, was declared by Mellor to be the new location for the Siemen's four circle single crystal X-ray diffractometer, the first of its kind in Australia. And Don Craig was stolen from the Department of Applied Geology to run the machine. Other X-ray equipment was moved from the Heffron to the Dalton Building and this saw the birth of the "Crystal Palace". Jim Green was a little upset at this outcome and went to join Blue Barclay, who had been appointed to the Foundation Chair of Chemistry at Macquarie University. The Crystal Palace initially housed the following staff: A/Prof N.C. Stephenson, A/Prof J.F. McConnell, Dr C. Grainger, Dr A. Schwartz, Professional Officer D.C. Craig, Professional Officer V. Kastalsky, Dr David Rae joined the group in 1968.

Twenty-five higher degrees were awarded to graduates from the Crystal Palace during its first twenty years. Mary McPartlin, Wei Choong, Peter Bayliss and Beno Schoenborn became Professors at overseas universities and a touch of royalty graced us when Val Duckworth married Sir Geoffrey Allan, of Imperial College, London and became Lady Valerie Allan. John Beale, who was awarded an Asthma Foundation Fellowship to study the molecular configuration of asthma drugs, such as Salbutamol, became the Director of the UNSW Computing Services Department, responsible for the entire University's academic administrative, PABX and telecommunications networking facilities. Bernie Hoskins, Colin Kennard and Fred Stephens all achieved senior positions in Australian Universities and Veronica Stark became Associate Professor at UNSW.

Computing has always played a major role in solving crystal structures. When the University installed UTECOM at the Kensington campus, the days of Beevers and Lipson strips and a desk calculator were over. John Rollet, from Oxford, UK, had kindly provided us with boxes of punched cards containing various crystallographic programs. Unfortunately these programs were very demanding on machine time and we were given the night shift, from 8.00 pm to 8.00 am, during which to run the programs. Some relief was obtained when an IBM 360/50 was installed at Lucas Heights and the Oak Ridge programs of Busong and Levy were available (ORELS, ORTEP). UTECOM was superseded by an IBM 360/50 system with a large core storage 250k and Don Craig was given the responsibility of looking after the School's computing requirements and became a tenured member of staff. Don eventually tailored our X-ray crystallographic programs specifically for the University's IBM computer, modifying existing versions of programs to sort data, calculate structure factors, fourier syntheses, least squares refinements, stereoscopic properties, bond distances and angles, least square planes etc. This suite of programs was written in Fortran and as such was easily transported to any future upgrade of the University's centralised computer environment.

Progress: During the 1950's most crystal structures were solved using the Patterson function. Our main investigations mainly used the vector convergence methods of Martin Burger, particularly the minimum function. I was present at the 1953 Ann Arbor meeting of the American Crystallographic Association when Jerry Karle and Herb Hauptman presented their paper on Direct Phasing Methods. To say that the audience was "confused" was an understatement, so a grant was made, but no progress was made until Jerry's wife Isabella began publishing the structures of a number of organics, all solved by the symbolic addition procedure. This immediately focused attention and the ACA monograph became a best seller. Just as Isabella paved the way for her husband, our female students paved the way for direct phasing methods at UNSW. Kerry Wyatt elucidated the structure of an ICI proprietary Anthelmintic drug, not to be out done, Elizabeth Goldschmred determined the absolute configuration of a cobalt (II) cation using the Bijvoet absorption edge technique.

X-ray laboratories were spreading throughout Australia and joint programs were operating between Centres, both within Australia and overseas. An informal body of users, called the "Bush Crystallographers", was proposed to hold meetings to discuss presented papers and progress generally. The first meeting was held at UNSW and then on a fairly regular basis at other centres. The group eventually formalised itself as the SCA (Society of Crystallographers in Australia). Ian Dance and I wrote the first constitution and I became president in 1978-79.

I left my "Crystal Palace" in 1974, in the capable hands of Ian Dance.

Crystal engineering Symposium in honour of Emeritus Prof. Roger Bishop

21st November 2011

A one day symposium in Honour of the career of Roger Bishop and in recognition of him achieving the honour of Emeritus Professor was held in late November at UNSW. Around 100 people joined Roger in the celebration throughout the day, with 10 scientific presentations drawn from the broad-ranging field of 'crystal engineering'. Speakers ranged from former students of Roger to leading researchers in the field, with many traveling inter-state and several international visitors. Students had the opportunity to present posters during an informal poster session and the day was rounded off with an entertaining speech by former Head of School Prof. Rob. Lamb (now University of Melbourne) covering Roger's life from a small boy in Leicester in the English Midlands, through to an internationally renowned Professor at UNSW. The celebrations continued into the evening with dinner at a local restaurant, which was well attended by many of Roger's colleagues, past and present.

The event was generously supported by PANanalytical, Bruker and the School of Chemistry, UNSW and expertly organised by A/Prof. Naresh Kumar and Dr. Pall Thordarson of the School of Chemistry and Dr. Chris Marjo of the Mark Wainwright Analytical Centre, UNSW.





Assistant Prof. Kris Kilian

University of Illinois at Urbana-Champaign

(Ph.D. 2007, Cornforth Medal Winner 2008, U Committee Prize winner 2009)

I did my PhD with Justin Gooding in the UNSW School of Chemistry from 2004-2007. How did an American kid from the pacific northwest of the USA end up doing a PhD at UNSW?

I was born and raised in Washington state and studied chemistry at the University of Washington in Seattle WA, USA. At the time, I was interested in particle physics and nuclear chemistry and had a vision of working in industry as a nuclear engineer. When I graduated with a BS in 1999 the only available jobs for entry level chemists were in Seattle's vibrant biotechnology scene so after doing a few odd jobs I ended up working as a lab technician for the genomics start-up company Rosetta Inpharmatics. My time at Rosetta introduced me to the beautiful complexity of biological systems and thankfully shifted my interests towards the bio side of chemistry. Of course, I couldn't understand a word of biology which made company presentations challenging to sit through so I went back to UW to do a coursework MS in chemical biology. After receiving the MS in 2003 I found that I had gained a strong appreciation for the pace of academic research so began my search for a research group to do my doctorate.

The prospect of leaving my industry salary to be a PhD student in my home town was not very attractive so I embraced my adventuresome side and began to search around the globe. After some email chat with Justin Gooding, I decided to apply to UNSW Chemistry and was accepted to the program. Having never visited Australia, I was taking a bit of a risk but nevertheless, I got on the flight and ~24 hours later I arrived in Sydney. The subsequent 3.5 years I lived, studied and played in Australia were some of the best in my life. My doctoral research was highly multidisciplinary where I worked with the groups of Professor Michael Gal in Physics, Professor Katharina Gaus in the Centre for Vascular Research and with Justin in Chemistry. My project involved the fabrication of nanostructured photonic materials, their chemical modification and immobilization of biological molecules for optical biosensors. Outside of the lab, I have many terrific memories of UNSW chemistry: SOCS parties in Heffron, \$5 steak night at the Regent, mourning bad results at the UniBar, and last but not least, Coogee beach.

After receiving the PhD in 2007, I returned to the US to do a postdoc with Milan Mrksich at the University of Chicago. With Milan I investigated stem cell differentiation using microengineered surfaces. This past year I accepted a position as Assistant Professor of Materials Science and Engineering at the University of Illinois at Urbana-Champaign. I am a faculty member of the Micro and Nanotechnology Laboratory and I have affiliations with the Department of Bioengineering and the Institute for Genomic Biology. My group has been fashioned to include aspects of my time in industry, my doctoral and my post-doctoral research experiences. In essence, our group tackles questions in developmental biology using a biomaterials strategy. This involves the design of surfaces and structured materials that mimic aspects of the cell and tissue microenvironment to discover and study the physical, chemical and biological cues that direct stem cell fate. These tools are used for fundamental research but will also shed light on useful design criteria for the fabrication of clinically relevant biomaterials and tissue engineering scaffolds.

It is with great pride that I am a UNSW Alumnus and I look forward to a long and productive relationship with the School of Chemistry.

<http://www.matse.illinois.edu/faculty/Kilian.htm>

Alumni: Comfort in numbers

Thanks to our friends in UNSW Foundation (we remain indebted to Xanthe Chapman), we have been able to trace almost 500 of our alumni. We hope to engage more fully with all of our friends who have passed through the doors of Chemistry@UNSW and were thrilled that so many of you turned out for our recent alumni dinner.

Several of you have assisted the School with documenting the School history and providing many photographs. We welcome all memoirs and souvenirs of your time at UNSW that many of us here now have no recollection of. We are particularly keen to receive your memories that will allow us to piece together the fascinating story of our School which reaches back over 150 years, long before UNSW was born. Those who have visited the modern day Kensington campus would be excused for not recognising the place and even getting lost; the University continues to develop and grow within its confines and the School of Chemistry is at the very forefront of these changes.

PASS IT ON

Do you remember doing it tough as a student? Did you benefit from a scholarship or award as a student? If you or your company would like to establish a scholarship, an award, sponsor events held at the School, or talk to our students about your career in chemistry please contact: John Stride. j.stride@unsw.edu.au



Dr Leigh Aldous

Dr Leigh Aldous

Dr. Leigh Aldous is a graduate of the University of Leeds, England (B.Sc. 2004). After becoming interested in ionic liquids whilst researching potential PhD projects, he moved to the world-leading Queen's University Ionic Liquid Laboratory (QUILL) at Queen's University Belfast, Northern Ireland (Ph.D. 2007). In addition, he spent several months as a visiting researcher at Merck KGaA's main industrial facility (Darmstadt, Germany, 2006) as well as a further two years working at Queen's University Belfast as a Postdoctoral Research Fellow on petrochemistry. During his PhD he developed a keen interest in electrochemistry, and spent two years working in this area as a Postdoctoral Research Fellow at the University of Oxford (2009 - 2011). He was appointed as a Lecturer at the University of New South Wales in September 2011.

At UNSW his research focuses upon many different aspects of electrochemistry and ionic liquids, with a growing focus upon the treatment of biomass (such as trees) in ionic liquids, followed by conversion into useful chemical products. This has the potential to reduce the chemical industry's reliance upon crude oil for almost all of the raw chemical materials and building blocks used to make pharmaceuticals, dyes, etc. that modern society demands and expects.

Leigh was always drawn to science and mathematics when he was younger, although at 18 years old no topic stood out above the rest. His decision to take chemistry at university came about because of a feeling that it was more widely and immediately applicable than the other topics and he does not regret his choice. Given that chemistry can easily involve physics, mathematics, biology as well as unique aspects of chemistry such as analytical chemistry and organic chemistry, he believes that anyone can find something (or indeed, many things) they really enjoy within the discipline of chemistry, just as he has.

Students Of Chemistry Society

Back in September (2011) SOCS hosted the second annual international food night to great success. A wealth of dishes from all around the globe were made available to all, from Ireland all the way to India, Italy and Spain. Many thanks to everyone who demonstrated that great cooking is just like a lab experiment except with a lot easier risk assessments (with the exclusion of flambé; that stuff's dangerous) and we obviously have great chemist cooks!

The current executive committee:

President: Michelle Dunn
Treasurer: Andrew (Robbo) Robinson
Secretary: Eden Tanner
Merchandising Officer: Brad Butler
Social Coordinator: Jonathan Carpentier
Publicity Officer: Stephen Parker
3rd Year Representative: Ethan Troung

A big thank you to Sam Furfari, Matthew Gyton and Alasdair McKay our outgoing executive, who did a fantastic job with organising the SOCS events this year. Thankyou to those who attended the events and helped out behind the scenes, it wouldn't have been such a successful year without you!

2011 was wrapped up with a BBQ for the outgoing honours students, held in conjunction with the school. This joint venture was a huge success and was a great way to celebrate their achievements.

2012 is looking to be a jam packed year of events, including the annual Chemball and Trivia night as well as the return of international food night, paintball, pubcrawl, BBQs and a trip to the movies! We also have a facebook group to keep you informed of upcoming events!

Check out the facebook group for the latest SOCS news and events:
www.facebook.com/home.php#!/group.php?gid=4118746348

Dr Luke Hunter

Luke Hunter is a new member of the academic staff at UNSW. Luke is a Sydneysider born and bred: he obtained his BSc and PhD degrees from the University of Sydney, graduating in 2005. He subsequently took up postdoctoral positions at the University of Melbourne and at the University of St Andrews, UK (where, sadly, he didn't quite overlap with Prince William and Kate Middleton). Luke's independent career commenced in 2009 with the award of a University of Sydney Postdoctoral Research Fellowship, and in July 2011 he was appointed as Lecturer in Chemistry at UNSW.

Luke's research interests include fluorine chemistry, natural product synthesis, peptidomimetics and medicinal chemistry. He is inspired by the molecules of life such as proteins and nucleic acids, and is motivated by a desire to increase our understanding of the world around us at the molecular level. Luke hopes to pass on to his students a sense of amazement and curiosity about the molecular world that we live in.



Dr Luke Hunter