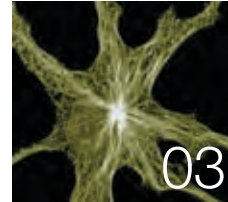




Inside

- 04 Stem cell grant for MIPS
- 05 Understanding swine flu
- 17 Postgraduate study opportunities
- 20 Wisdom in the Solomons



Art meets science



Footprints leave distinctive marks

‘Lives of great men all remind us
we can make our lives sublime
and, departing, leave behind us
footprints on the sands of time.’

Henry Longfellow



Footprints make impressions, large and small. Jim (PhC 1956) and Jenny Mitchell (PhC 1957) have both left large footprints and big shoes to fill, both personally and professionally. Now Jim and Jenny want to leave an impression of a different kind – a bequest to the Faculty of Pharmacy and Pharmaceutical Sciences.

“Over the years, Jenny and I have been fortunate to have been able to return to our community and profession some of the benefits we have reaped,” said Jim. “Sometimes this has been our time, sometimes our skills and sometimes our resources.”

For Jenny, this meant supporting regional dance in north-west Victoria, assisting the Red Cross and serving as a Justice of the Peace. In Jim’s case, it meant being a member of the Pharmacy Board of Victoria for 12 years, treasurer to the Swan Hill Pioneer Settlement, serving on the state executive of the National Party, and taking an active role in Freemasonry and the church.

“Life as pharmacists in busy Swan Hill brought us into contact with many people,” said Jenny. “This helped us to understand the needs of rural communities and involved us in meeting these needs.”

Jim and Jenny have visited schools of pharmacy in London as well as the faculty’s sister school in Kansas, so they have an understanding of global pharmacy education.

“To continue to compare well with similar institutions worldwide, we recognise that the faculty needs ongoing support,” said Jim. “Pharmacy is all about people helping people, so our bequest is directed towards helping students – the next generation of pharmacists.

“Their learning, the teaching and research to which they are exposed and their practical experiences are the concepts we hope our bequest will support,” he added.

Longfellow’s quote captures so well the thoughts and actions that Jim, Jenny and other bequest benefactors to the faculty have had.

A gift of a bequest to the faculty is unique and important. It’s an enduring gift that makes a distinctive and lasting impression on the faculty and on its students – the real beneficiaries.

If you are thinking about making a gift or a bequest to the faculty contact Anne Gribbin, director of the Victorian College of Pharmacy Foundation, tel: +61 3 9903 9507.

From the dean

The essential linkage between education and research is an often discussed topic within universities.

Our faculty prides itself on offering education to undergraduates and postgraduates that is informed by the latest research. In turn, I hope that our graduates embark on their careers with an understanding that research is fundamental to the advancement of science and, ultimately, the wellbeing of patients.

The important link between education and research was recently highlighted by Professor Michael Roberts (University of Queensland) at the faculty's Professor Barry L Reed Distinguished Lecture. Mike, whose professional journey has been a remarkable one, talked about the versatility of an education in pharmacy and pharmaceutical sciences. He spoke with passion about his research interests and outcomes, and the vital importance of communicating those outcomes to the next generation of students and the community. He described many examples where his research findings have had an impact on patient care and practice throughout the world.

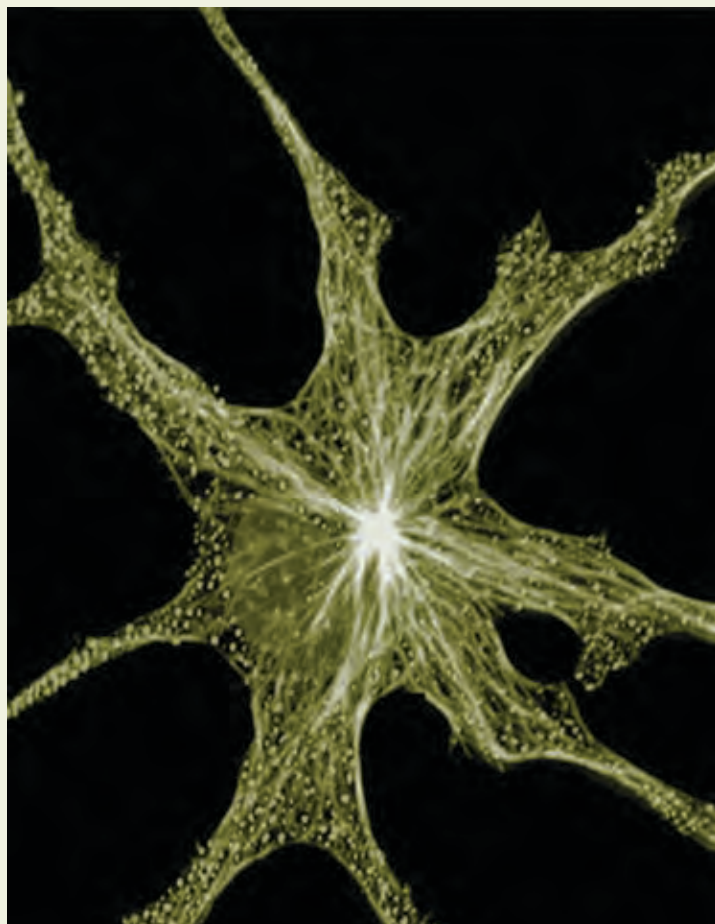
His message was to never give up, follow what you are passionate about and give back to others. Mike's generosity in terms of his time and intellect has served our profession so well over the years and has supported and mentored the careers of so many young researchers.

Mike was a fitting person to deliver the second Barry Reed lecture. As many of you will know, Barry was, and continues to be, extremely generous with his time and knowledge.

People like Mike and Barry have a lasting impact on research and pharmacy practice in Australia and internationally, and a profound effect on the lives of those who meet them. It is a privilege to know them, to have learnt from them and to have worked with them.



**Professor Bill Charman
(BPharm 1981)**



A melanophore cell; the focus of Barry Reed's impressive research career.

Making an impact

Pharmacy and pharmaceutical sciences make an impact on healthcare – a life impact, locally and globally – and the Victorian College of Pharmacy Foundation is incorporating this defining concept into all its fundraising projects and activities.

The Foundation's 2009 Annual Appeal introduced this idea for the first time, resulting in just over \$29,000 being raised from generous donors from all over Australia.

The Foundation board is also incorporating this concept into three newly-created fundraising project groups.

These project groups, led by board members Bill Scott (BPharm 1970), Ken Windle and Tony Nunan (BPharm 1976) respectively, are:

- Excellence in pharmacy practice research
- Excellence in pharmaceutical sciences
- Excellence in education.

Each of the projects will build on the faculty's expertise in transforming how students learn and how innovative technology and equipment is used – both in collaborative teaching methods and styles, and in technologically advanced teaching spaces.

Underpinning each project is the faculty's vision to provide each student with a rigorous, relevant research-led and evidence based education, in an environment that utilises effective and current scientific technology and resources. Within each of the three projects is a number of specific needs and the faculty will be seeking philanthropic and corporate support to realise its vision for students. Overall, a total of \$12.5 million will be sought.

If you would like to be part of these visionary projects and contribute to the impact that the Faculty of Pharmacy and Pharmaceutical Sciences makes on the healthcare of the community, contact Alistair Lloyd AO RFD ED (PhC 1956), Chair of the Foundation, tel: +61 3 9903 9507.

International stem cell grant for MIPS

Monash Institute of Pharmaceutical Sciences (MIPS) researcher Professor Colin Pouton is one of the first recipients of a collaborative grant under the Victoria–California Stem Cell Alliance.

Professor Pouton, Dr John Haynes and their MIPS research team are collaborating with Florey Neuroscience Institutes and the Burnham Institute for Medical Research in California on a project to identify the best candidates for cell based therapies for Parkinson's disease using animal models. The grant is for a total of \$6 million, including approximately \$1 million to fund the research of the Victorian group.

"The project will study implantation of cells derived from embryonic and neural stem cells and investigate which other supporting factors, such as specific brain proteins, contribute to this effect," said Professor Pouton.

Researchers from the Burnham Institute for Medical Research have discovered that human neural stem cells (hNSCs) may exert a significant beneficial impact in predictive animal models of actual human Parkinson's disease. While some of the hNSCs differentiate into replacement dopaminergic neurons (pictured in green above), much of the therapeutic benefit derived from a stem cell action is due to what is called the 'chaperone effect', where hNSC-derived cells that do not become dopamine neurons contribute to the reversal of severe Parkinsonian symptoms.

While the ultimate goal may someday be to replace dead

dopamine neurons, the chaperone effect represents a more tractable near-term method of using cells to address this serious condition. However, many questions remain in the process of developing these cellular therapeutic candidates.

The MIPS research team and its collaborators will use genetic methods for identifying specific precursors of dopaminergic neurons that allow these precursors to be purified for use in implantation experiments. Implantation of committed precursors may represent an improved or complementary approach to hNSC cell therapy of Parkinson's disease.

Professor Pouton's team will examine whether early or late dopaminergic progenitors represent the best approach for cell therapy and will provide suitable human cells to the Burnham Institute for Medical Research for inclusion in cell therapy studies.

"Our project aims to identify and provide the ideal cell type for implantation in Parkinson's," said Professor Pouton. "We are aiming for a positive result that will have a lasting impact on treatment of this debilitating disease."

About Parkinson's

Parkinson's disease, a progressive brain disorder that weakens a person's motor control, speech and other functions, severely debilitates about 2 per cent of the US population and approximately 80,000 Australians.

The cause of the disease is progressive loss of cells in a small midbrain area called the substantia nigra. Here the nerve cells release the chemical dopamine, which directs the brain on how to control body movement. As these cells are lost, less dopamine is produced and the brain receives fewer messages, causing tremors, slow movement and stiffness.

The symptoms of Parkinson's appear when around 70 per cent of the cells that produce dopamine are damaged.

Parkinson's usually affects people aged 50 to 75, although up to 20 per cent of people who are diagnosed are aged between 30 and 50. Each person is affected differently and the progression rate can differ markedly between individuals. There are approximately 20,000 Victorians with Parkinson's disease.

Currently, there are no effective therapies for the treatment of Parkinson's. However, its symptoms can be controlled to some extent by medication that attempts to replace lost dopamine in the brain.

Understanding swine flu

The 2009 influenza pandemic currently sweeping the world is creating an urgent need for vaccines and drugs to treat patients and stop the spread of the virus.

Influenza pandemics occur every 10 to 40 years, but the factors that lead to their emergence are complex and not well understood. Three influenza virus pandemics occurred in the 20th century – the H1N1 Spanish influenza virus in 1918, the H2N2 Asian influenza virus in 1957 and the H3N2 Hong Kong influenza virus in 1968.

The 1918 pandemic affected up to a billion people, killing an estimated 20 to 50 million people around the world and with a mortality rate of 2 to 5 per cent. Its cause appears to have derived from H1N1 viruses. In contrast, the viruses that caused the 1957 and 1968 influenza pandemics resulted from genetic re-assortment of human and avian influenza viruses.

It seems that the swine H1N1 influenza virus has been an endemic infection within the pig population of North America since 1918, so the emergence of future strains was only a matter of time.

The severity of the present pandemic strain of swine flu will depend on the ability to contain and combat infection by development of appropriate vaccines and drugs.

The faculty is currently conducting two research projects that aim to facilitate treatment and minimise side effects.

Associate Professor Ossama El-Kabbani from the Medicinal Chemistry and Drug Action theme within MIPS and Dr Tony Velkov (Deakin University and MIPS) were recently awarded a National Health and Medical Research Council (NHMRC) grant of \$179,500 to research swine flu.

The research project, titled *The structure and receptor binding properties of the 2009 swine influenza pandemic virus hemagglutinin*, is investigating the three dimensional crystal structure of the hemagglutinin molecule of the swine flu pandemic strain and designing small molecule inhibitors that target the sialic acid binding pocket. This data will contribute significantly to vaccine and drug development that will prevent future swine influenza pandemics and results of the project will be shared internationally.

Some antivirals currently being used to treat the H1N1 pandemic have been reported to induce neuropsychiatric side effects in some patients. A new project being undertaken by Dr Joe Nicolazzo (BPharm 1999, BPharmSc(Hons) 2001, PhD 2005) and Dr Michelle McIntosh (BPharm 1995, BPharm(Hons) 1996, PhD 2000) is exploring whether Relenza[®], an antiviral drug used to treat and prevent influenza, is able to access the brain at concentrations necessary to induce similar side effects. If Relenza[®] exhibits poor penetration into the brain, it is likely to have limited neuropsychiatric side effects, providing an effective treatment for influenza without the associated side effects. This research is timely given the urgent need for the availability of treatments with a suitable safety profile.

Dr Nicolazzo and Dr McIntosh, researchers in the Drug Delivery, Disposition and Dynamics theme within MIPS, are working in conjunction with Professor Mark von Itzstein of Griffith University on the project. In 1986, Professor von Itzstein and his research team were involved in the discovery of Relenza[®] at the Victorian College of Pharmacy, working on information provided by CSIRO scientists.

The methods being developed in this project are likely to be useful in assessing the potential of other antiviral agents to gain entry into the central nervous system, including those to treat influenza, an area of research for which funding is actively being sought.

Superbugs – targeted for attack!

Professor Jennifer Martin (BPharm 1982, MPharm 1986), from the Institute for Molecular Bioscience at the University of Queensland, has been awarded an Australian Laureate Fellowship to attack ‘superbugs’ by creating a new generation of antibacterial drugs.

Superbugs, a major issue worldwide, are bacteria that have developed resistance to most of the antibiotics available on the market. These bugs can pose a risk to the population, as there is no effective treatment for them. They are particularly dangerous for people with a lower immunity, including older people, small children and babies.

Professor Martin’s research will focus on developing a new class of antibacterial drugs that aim to avoid the problems of antibiotic resistance. Along with colleagues from the University of Queensland, she will also be working in collaboration with Dr Martin Scanlon from MIPS on the project.

Awarded by the Australian Research Council (ARC), Australian Laureate Fellowships support excellence in research by attracting world-class researchers and research leaders to key positions, and creating new rewards and incentives for application of their talents in Australia.

The fellowships are open to outstanding researchers of international repute, and preference is given to researchers who will play a significant, sustained leadership and mentoring role in building Australia’s internationally competitive research capacity.

The first 15 Australian Laureate fellows have an average five-year budget of \$2.77 million, which includes money for research teams of postdoctoral researchers and postgraduates.

“This fellowship is giving us the opportunity to develop a new generation of antibacterial drugs to fight bacteria that are undermining the effectiveness of antibiotics,” said Professor Martin. “Resistance is growing so fast that many antibiotics simply can’t beat the bacteria they were created to treat.”

A major technique that will be used for the drug discovery project is x-ray crystallography. Over the years, Professor Martin has developed an international reputation as a research leader in this field, particularly in protein crystallography and structure based drug design. Using crystallography, her researchers will work out the structure and shape of key disease-inducing proteins from antibiotic-resistant bacteria and design drugs that specifically target these proteins.

“That’s where MIPS comes in,” said Dr Scanlon. “Our team here will use complementary methods to identify small molecules that bind to the bacterial proteins. In conjunction with the x-ray crystallography, this will assist us in designing drugs to disable the key proteins.”

Professor Martin went on to explain the research further. “Once we discover a weak spot in the protein, we can design a molecule that will successfully attack the weak spot,” she said. “That molecule then becomes the potential new drug.”

The difficulty is in ensuring that the new drugs do not kill the bacteria, as this may trigger bacterial resistance mechanisms. Instead, the drugs will inactivate a protein in the bacteria that is essential for causing disease in humans. This makes superbugs harmless.

“By removing this critical protein, we will ensure that the bacteria are unable to cause disease,” said Professor Martin. “And if our new drugs are successful in avoiding the resistance problem, we won’t have to keep finding new antibiotics.”

Professor Martin is aiming for her team to have made significant progress by the end of the fellowship term, having the goal of several candidate drugs in clinical trials within five to 10 years.

About Professor Martin

Professor Martin completed her studies at the Victorian College of Pharmacy in 1981 and was awarded that year’s Gold Medal. After her registration year she returned to the college to undertake a Master of Pharmacy, specialising in computer-aided drug design.

After completing that qualification, Professor Martin was awarded a Royal Commission for the Exhibition of 1851 Scholarship, which has been awarded to many notable and successful Australian scientists including Mark Oliphant and Nobel Prize winner Sir John Cornforth. The scholarship funds a three-year stay at Oxford or Cambridge. At the same time, she was awarded a Queen Elizabeth II Silver Jubilee Award for Young Australians.

Professor Martin received her PhD in protein crystallography and drug design from the University of Oxford, after which she took up a postdoctoral position at Rockefeller University, New York. She then moved back to Australia to take up a position in the Centre for Drug Design and Development (3D Centre) at the University of Queensland. She established the first protein crystallography laboratory in Queensland in 1993 and since then has built the laboratory from a one-woman facility to a resource used by about 50 researchers today.

Professor Martin’s work in the field of protein folding and protein interactions has been published in respected journals such as *Nature* and the *Proceedings of the National Academy of Sciences of the USA*. She continues to be recognised for her outstanding research achievements with numerous awards, including the 2006 Australian Society for Biochemistry and Molecular Biology’s Roche Medal and the inaugural Women in Biotechnology Outstanding Researcher award.



Professor Martin’s research will focus on developing a new class of antibacterial drugs that aim to avoid the problems of antibiotic resistance.

Crystallising the beauty of science

Professor Martin created this striking image for Ångström Art, a group that is bridging the gap between art and science. She explained how Ångström Art aims to illustrate the beauty and benefits of science.

"I use crystals in my scientific research as a means of understanding how proteins work. To me, crystals are not just research tools – they are bewilderingly beautiful conundrums. The simple lines of the geometrically perfect outer surface

conceal a mind-boggling inner complexity: the crystalline lattice is actually formed from millions of copies of a molecule organised into an endlessly repeating and symmetrical pattern.

This image, *Cubist crystal*, was created from a light microscope photo of a protein crystal floating in a crystallisation drop. The photo was enhanced with a rainbow array of brightly coloured blocks of light that represent the symmetry and order inherent in crystal systems."



Delivering great medicines from Australia to the world

Pharmacy seemed a logical choice for Dr Craig Rayner (BPharm 1995, BPharmSc(Hons) 1996), whose love of chemistry and biology classes at secondary school led to an early interest in clinical research and a prestigious international career.

After completing his degree in 1994, Dr Rayner worked in the pharmacy department at Derby Regional Hospital in Western Australia. As well as learning about pharmacy in the rural environment, his role entailed him going into indigenous communities with the flying doctor service and attending health clinics.

"While in the Kimberley, I became increasingly interested in research and conducted a project on adherence to therapies to treat *Chlamydia trachomatis*, an infection endemic in the indigenous population resulting in sterility," said Dr Rayner. "I was lucky enough to win a Trainee Chapter Prize for my paper and from then on, research became my focus."

Dr Rayner practised as a clinical pharmacist at The Alfred for three years, a role that also involved clinical research. Deciding to undertake postgraduate study, he chose a PharmD at the prestigious University at Buffalo, USA, considered the best in the world for specialised areas including pharmacokinetics, pharmacodynamics and clinical research in infectious diseases.

"The University at Buffalo really challenged me," Dr Rayner said. "It was extraordinarily busy but very rewarding, working with some of the brightest minds in the world. I made a lot of valuable contacts there that continue today."

After completing his PharmD in 2000, Dr Rayner returned to Melbourne and the faculty as senior lecturer in the Department of Pharmacy Practice and co-director of the Facility for Anti-Infective Drug Development and Innovation.

"I believe that you don't really know something until you teach it," he said. "And it was a joy to engage with bright, enthusiastic and motivated young people back at the faculty."

In 2005, Dr Rayner moved to London as clinical pharmacologist in global pharma development with Roche. His motivation was to learn as much as possible about drug development processes, and the best place for that was within a major pharmaceutical company.

In this role, Dr Rayner led the global clinical pharmacology activities for Tamiflu®, the antiviral for treatment and prevention of influenza, including pandemic flu. This coincided with the first avian flu pandemic, so involved him leading interactions with global health authorities, governments and the World Health Organization. He managed many clinical research activities, including novel formulations and drug interaction studies to enhance the activity of Tamiflu® and studies to understand how to dose Tamiflu® in special populations such as transplant patients and infants under 12 months of age. He also had to present twice to a US Food and Drug Administration (FDA) Advisory Committee hearing on the company's behalf, and this was broadcast live worldwide.

Following a move to Switzerland, Dr Rayner was appointed Roche's Global Due Diligence Director, responsible for the scientific and development assessment of new product opportunities for entry into the Roche drug portfolio.

"This was a shift for me, as I was responsible for assessing potential opportunities that involved



investments of tens and hundreds of millions of dollars," he explained. "But there were also some great side benefits. Living in Switzerland meant I could travel easily throughout Europe, catch the train to Milan for the day or go mountain bike riding whenever I liked!"

Now back in Melbourne as Director of Clinical Development at CSL Limited, Dr Rayner is responsible for leading the development of the global clinical development strategy for novel therapeutic products and responsible for leading the design and maintenance of scientifically rigorous and cost-effective clinical development plans.

"This is a different and stimulating environment for me. It's a broader role, with many challenges and opportunities," said Dr Rayner.

"My position involves mapping strategies to take a drug candidate from initial research through human trials to the market. It's a strategic, integrating role that provides clinical oversight and brings teams of people together to achieve our goals.

"At the moment, I'm really enjoying what I'm doing. I'd also like to fit in some locum work in community pharmacy, so that I can continue to work with patients. In the future, I look forward to getting some runs on the board here at CSL and delivering great medicines from Australia to the world."

Seizing an opportunity

Illicit substances and drugs of dependence are all part of a day's work for Amy VanDerPoel (BFormSc 2005), who is a Forensic Officer at the Victoria Police Forensic Services Centre.



Amy analyses all types of drugs, dealing mainly with ecstasy, amphetamines, heroin, cocaine, LSD and ketamine. The substances are destined either for evidence or destruction.

"We analyse all drugs so that we have an accurate picture of drug trends at any given time. As well as dealing with case numbers and the administrative side of illicit drug analysis, I do a lot of analytical chemistry using mainly IR spectroscopy, GC/MS, HPLC, GC and UV spectroscopy. There's a fair bit of work involved with sample preparation as well."

The other side to Amy's role is her work as a fire and explosives investigator, which involves being on call one week each month to attend scenes where there is suspected arson or a fatality due to fire.

"At these scenes it's up to us to determine the cause of the fire and if any accelerants were used. We search for any other evidence that may help with our investigation. This also involves giving evidence in court. This year, I did quite a bit of work with the Victorian bushfires too."

Because there are so many aspects to drug analysis, Amy finds that each day is different and she is constantly learning new things.

"I've learned to be very vigilant and thorough in my work – there's no room for error when you're working with evidential samples that will determine someone's future," she said. "I also find providing drug intelligence and crime scene investigation to be very rewarding."

According to Amy, her Bachelor of Formulation Science was a very relevant degree, with the course's small group structure giving her a good opportunity to learn and ask questions.

"Studying at Monash was great," she said. "Although I'm now working with completely different sorts of drugs, the course helped me to understand the pharmacology side of drug dependence and the chemistry involved with drug behaviour. It opened up a lot of options for me."

Amy explained that, after she was employed, she discovered that her pharmaceutical knowledge and

industry experience helped her to get the position.

"With most of the other drug analysts having basic chemistry degrees, they thought that someone with pharmaceutical knowledge would benefit the team," she said. "So now I get hit with lots of questions on things that my colleagues didn't learn about during their university studies!"

Over the past year or so, Amy has undertaken significant training to become a full drug analysis case worker. This means that she will be given her own cases to work on, from seizure of the drugs through to giving evidence in court.

"Although my work is quite specific, it has taught me a great deal that will be beneficial to any future jobs," Amy added. "I feel very grateful to be where I am at the moment."



Fitness to practice

Competency and pharmacy education were placed squarely under the microscope at the 5th Pharmacy Education Symposium held in July.

The symposium, conducted biennially by the faculty, is held in the medieval Tuscan town of Prato, Italy, at Monash's Prato Centre. Convenient to northern hemisphere practitioners and regulators, the central location draws together an international melting pot of people and views. Eighty-two delegates from North America, the UK, Asia, Australia and New Zealand attended, with participants contributing a strong sense of collegiality.

The theme of the symposium, *Fitness to practice: competency based teaching and learning in pharmacy*, brought together an eclectic group of delegates from across a range of institutions including universities, licensing bodies and professional pharmacy associations.

The symposium presented a systematic analysis of competency, including current expectations, the competency standards for graduates, and the key question – what is competency?

This seemingly simple query proved challenging to answer, as competency means different things to different people. There was broad agreement among all delegates that different levels of practice require different levels of competency.

"The varying levels of competency expected in both undergraduate and postgraduate education is a hot topic," said Associate Professor Jennifer Marriott (BPharm 1971), Bachelor of Pharmacy course director. "We need our practitioners to be fit for purpose."

The global push for registering authorities requires more documented evidence of educational undertakings to support competency.

Stakeholders are struggling to define the boundaries of what should constitute a competency framework and how the standards should be achieved and assessed.

Needless to say, discussion among internationally recognised speakers and delegates became increasingly energetic as they attempted to tease out the pertinent issues.

When addressing the task of measuring competency, delegates explored several different assessment methods, including Objective Structured Clinical Examinations (OSCEs), the development of a competency framework and the effectiveness of one-on-one assessments.

Associate Professor Marriott explained that competency remains an important issue for both academics and registration authorities.

"This symposium was not meant to answer all the questions, but to provide a forum for discussion and debate," she said. "The definition and measurement of competency is being tackled at an institutional level by the faculty. Our new undergraduate curriculum has competency as the focus of all four integrated study streams."

According to Deputy Dean Professor Peter Stewart, competency is the key to educating future generations of pharmacy professionals.

"The faculty is determined to provide the profession with graduates who have the appropriate knowledge base and professional and generic skills to contribute to the quality use of medicines, and also understand, appreciate and value the role of a pharmacist as a healthcare professional," he said.

"There will be a continued focus on embedding and assessing the skills and competencies required for future practice."



2011 symposium

Pharmacy curriculum: teaching today for tomorrow's practice

July 11–13, 2011

Monash University Prato Centre, Italy
www.pharm.monash.edu.au/education/symposium2011

See a new way of teaching

Visit www.pharm.monash.edu.au and view our **education>innovation** video. You'll see some of our amazing new technologies in action.

A new initiative at the 2009 symposium was the Teaching Technology Showcase, which displayed nine teaching technology offerings from Australia, the UK and the USA. The showcase gave delegates a hands-on opportunity to experience and test the latest developments in technological innovations designed to support pharmacy education and develop competency. Monash led the way with five projects showcased.

Provide context and integration using authentic learning situations and continuity across all units and year levels

- **Pharmville 3052**
A community depicting real people with real lives, problems and medical histories



Provide students with activities that complement face-to-face teaching and create opportunities for active participation and learning through experience

- **Pharmville 3052**
Virtual patients (avatars) allow students to practise counselling and communication skills



- **Pharmatopia and Aesclepia**
12 of the best schools of pharmacy from around the world work collaboratively in web based virtual world Second Life



- **Keepads**
Audience response systems provide immediate feedback to students and academics, during lectures and tutorials



Provide flexible spaces that engage students and support new teaching and learning activities and face-to-face teaching

- **Virtual practice environments**
Immersive high tech flexible spaces for small group teaching support educational innovation projects



Teaching excellence

Dr Ian Larson is the faculty's nominee for the 2009 Vice-Chancellor's Award for Teaching excellence.

Dr Larson's strong contribution to education is reflected in his activity based approach to learning. One of his most recent strategies was to replace the normal lecture with a combination of pre-reading and feedback sessions. He has been teaching fundamental chemistry in a pharmaceutical science context, using common product-relevant examples and linking concepts to current research. He has also enhanced student participation and understanding through selection of appropriate (not traditional or historic) learning activities, class discussion and concept maps.

A key activity is Dr Larson's involvement in the development of pharmacy and pharmaceutical science curricula and resources, in particular developing innovative technology-driven strategies using the web based virtual world Second Life. He has taken a leadership position, motivating and enhancing the development of learning activities on Second Life internationally. He has also contributed to the development of good teaching practice in the faculty and has taken on the role of chair of a new committee called Quality in Learning and Teaching.

"Ian is a committed and innovative teacher who embraces the concept of activity based teaching and makes an outstanding contribution to improving the learning of students in the faculty," said Professor Peter Stewart, Deputy Dean. "He is a reflective teacher who evaluates his teaching performance and puts strategies in place to improve learning for students."

Art meets science

The new CL Butchers Pharmacy Library is home to a diverse selection of artworks from Monash University's Museum of Art.



1



2



3



4

1
Jane Trengove
Square cushion 1993
and *Round cushion* 1993
Each: oil on board
90.0 x 90.0 cm

2
John Young
Junior (stoppage #7) 1989
Synthetic polymer on canvas
213.0 x 122.0 cm

3
Donna Bailey
Generation Y girl 2004
Type C photographic print
105.5 x 129.5 cm

4
Donna Bailey
Mulberry lips 2003
Type C photographic print
105.5 x 129.5 cm

5
Fiona MacDonald
Bramble 1994 (detail)
Offset print collage
46.0 x 35.5 cm

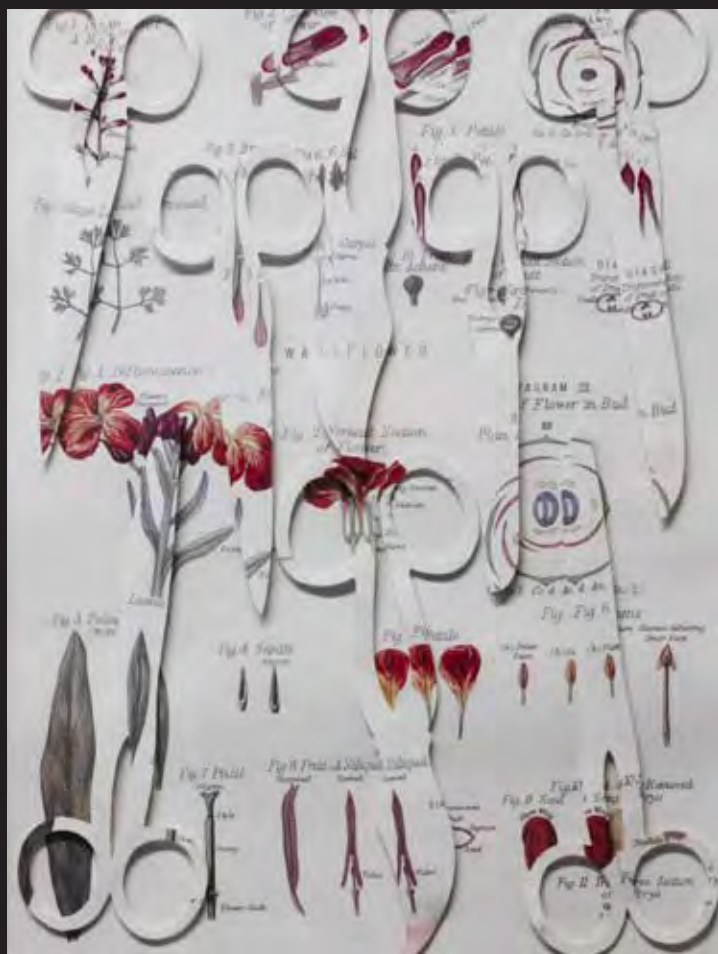
6
Fiona MacDonald
Fumitory & Wallflower 1993 (detail)
Offset print collage
46.0 x 35.5 cm

7
Fiona MacDonald
Pansy 1993 (detail)
Offset print collage
46.0 x 35.5 cm

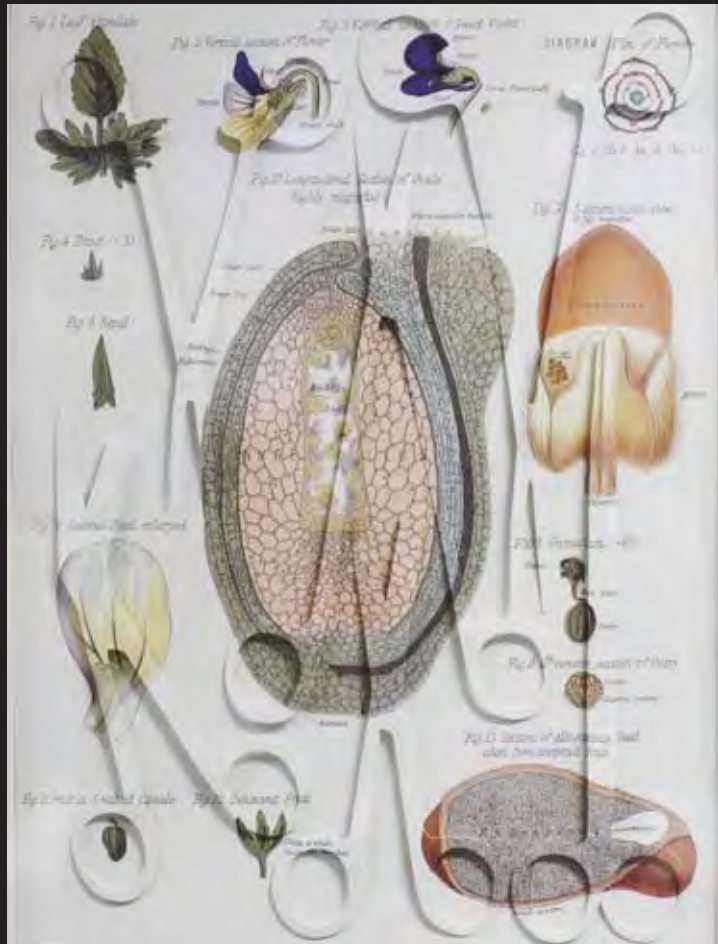
8
Fiona MacDonald
Moss 1994 (detail)
Offset print collage
45.8 x 35.5 cm



5



6



7



8

Determination and mindfulness: a recipe for success

In what seemed like the blink of an eye (to outsiders at least), Adam Elliot went from being an unemployed unknown to Oscar-winning Australian success story. But what played out on screen in just 22 minutes, in Adam's award winning claymation short film *Harvie Krumpet*, took years of dedication and 14 months of production.



Adam was one of the guest speakers at this year's Student Leaders function, which was run by the Victorian College of Pharmacy Foundation. Designed to help students to understand what it means and takes become a leader in pharmacy and pharmaceutical sciences, the event included the opportunity to meet industry leaders.

While studying at the Victorian College of the Arts, Adam created *Uncle*, the first in a semi-autobiographical trilogy of animated short films that also included *Cousin* and *Brother*. Even though all three films were Australian Film Institute (AFI) winners, Adam went on to make *Harvie Krumpet* on a minimal budget, in a storage garage, with Centrelink benefits as his income.

Like most 'overnight successes', Adam's was one that took years of working tirelessly, doing what he could to do to get by, even selling t-shirts at St Kilda's market – a far cry from the red carpet of the Oscars, where Adam would find himself in 2004.

After the Oscar win, Adam and his short film became the toast of Australia. The film, about an unfortunate Australian immigrant, was a family affair – Adam's father supplied the storage shed (which became a makeshift studio) and his mother knitted the character's clothing.

With offers coming in thick and fast Adam decided to keep working independently, turning down lucrative contracts so that he could maintain creative control. This decision has not left Adam on the country's rich list, but did lead to being part of the opening night of one of the world's most celebrated film festivals.

Adam's feature directorial debut *Mary and Max* opened this year's Sundance Festival to become the first-ever Australian film and the first-ever animated feature to do so. The film, which took five years to produce, is based on Adam's true-life pen pal – a Jewish atheist who has Asperger's syndrome.

Adam explained how he enjoyed speaking to the students at the Student Leaders function.

"Even though our two industries are like chalk and cheese, I found that we are all the same and share common stories, struggles and aspirations," said Adam. "I hope the students enjoyed my presentation and identified with my life journey, so their own crusades can be as enriching and fruitful."

Dr Craig Hassed, an expert in mindfulness, general practitioner and a senior lecturer within Monash University's Faculty of Medicine, Nursing and Health Sciences, also addressed the students.

Author of the acclaimed book *The Essence of Health*, Dr Hassed's teaching, research and clinical interests involve mindfulness based stress management, mind-body medicine, meditation, holistic healthcare, complementary therapies and medical ethics.

Dr Hassed said that a holistic approach to wellbeing is sometimes overlooked but vitally important to personal health. He explained that the alarming rate of first year doctors with anxiety and depression needed to be addressed and the issue could equally be applied to all students, particularly those working in healthcare.

According to Dr Hassed, wellness is the key to a healthier, happier and calmer life. He believes in seven crucial pillars of wellbeing – education, stress management, spirituality, exercise, nutrition, connectedness and environment – that are drawn from both traditional and complementary medicines. He has designed a mindfulness program that incorporates all these key elements.

Dr Hassed's program has allowed students to gain focus, release stress and prepare themselves for the pressures of the working environment. His program is now a part of Monash's medicine curriculum and is also being piloted at Harvard University due to its success.



Third year medicinal chemistry student Briana Davie gained a lot from the guest speakers' presentations.

"Despite Adam and Craig's vastly different experiences, the combined message of the importance of doing something you're passionate about and valuing your personal wellbeing was a powerful one for me," said Briana.



Meet Mary and Max

The Victorian College of Pharmacy Foundation has five autographed copies of Adam Elliot's *Mary and Max* DVD to give away.

All graduates from the faculty are eligible to enter. Simply update your details on the enclosed form and post or fax the form to the Foundation (or tel: +61 3 9903 9087) by Friday 20 November to be in the running!

Better medicines by design

MIPS researchers have recently attracted more than \$1 million in ARC linkage grants for research that has the capacity to directly contribute to the improvement of treatments for Parkinson's disease and cancer.



Dr Martin Scanlon, Dr Jamie Simpson, Professor Roger Nation and Professor Bill Charman (MIPS) and Professor Jennifer Martin (University of Queensland)

Targeting virulence of Pseudomonas aeruginosa by inhibiting oxidative protein folding

Antimicrobial agents, such as antibiotics, have combated the threat from infectious diseases and contributed major gains in life expectancy since their discovery in the 20th century. However, the appearance of bacteria that are resistant to effective medications has been well publicised. This project will generate compounds that, rather than killing bacteria, limit their ability to cause disease. In doing so they may slow down the inevitable emergence of resistance. This project will become part of a global effort to combat the threat from so called 'superbugs' that have developed resistance for virtually all currently available drugs.

Dr Ben Capuano and Professor Peter Scammells (MIPS), Dr Neil Miller (GlaxoSmithKline) and Professor Paul Chapman (Centre for Cognitive and Neurodegenerative Disorders, Singapore)

The synthesis and pharmacological evaluation of novel bivalent dopamine D2 and adenosine A2A ligands for the treatment of Parkinson's disease

This grant will allow the investigation into new treatments for Parkinson's disease. Parkinson's disease is a neurodegenerative brain disorder that affects approximately 80,000 Australians. This gradual death of dopamine-producing neurons is characterised by severe and debilitating movement disorders such as rhythmic tremors, jerkiness and rigidity. Other symptoms include depression and dementia. Several classes of medication are currently used to alleviate these symptoms; however, their effects are variable and limited. This project has the potential to develop unique new treatments to halt the worsening of the devastating symptoms of this disease.

Dr Ben Boyd and Dr Ian Larson (MIPS), Professor David Cahill (Deakin University) and Phillip Hay (Nufarm)

Nanostructured liquid crystal particles as next generation agricultural bioactive delivery systems

The efficient delivery of drugs and other bioactive molecules to surfaces has profound implications for topical drug delivery to, for example, the skin, cornea and mucosal surfaces, as well as the delivery of agricultural agents to plants. This research focuses on a novel class of nanostructured particles that interact strongly with surfaces, leading to improved delivery of incorporated agents. In addition to potential pharmaceutical applications, the understanding gained from the research is also aimed at improving the delivery of agricultural chemicals, potentially reducing the amount of chemicals and water required to effectively treat crops.

Professor Peter Scammells and Dr Ben Capuano (MIPS), and Dr Campbell Scott (GlaxoSmithKline)

Applications of the Polonovski reaction in the synthesis of bioactive opiates

Cheaper medications could result from this research, which will apply a recently discovered reaction technique to gain an understanding of how the structure and activity of noscapine are related. If successful, the research will improve the production of semi-synthetic pharmaceutical opiates, one of Australia's important export industries. Significantly, any advances in this area will also make a contribution to the overall search for improved anti-cancer agents.

Monash and the University of Nottingham research alliance funding scheme

Building on an established collaboration between the two institutions, the Faculty of Pharmacy and Pharmaceutical Sciences and the School of Pharmacy at the University of Nottingham, an internationally recognised, top ranked school within the UK, have created a new scheme to provide funding to initiate or develop collaborations between researchers at both institutions. The jointly funded scheme supports projects on a quarterly basis throughout the year in the areas of pharmacy practice and pharmaceutical sciences research.

The first round of 2009 grant recipients were:

- Dr Bim Graham and Professor Peter Scammells (MIPS), and Associate Professor Kellam (Nottingham) for the project *Novel luminescent probes for studying adenosine receptor ligand interactions*. A grant of \$16,380 was awarded to facilitate a travel exchange between the institutions for two current postgraduate research students.
- Dr Martin Scanlon and Dr Jamie Simpson (MIPS), and Associate Professor Emsley (Nottingham) for the project *Structure and fragment based design of inhibitors of collagen-integrin interactions*. A grant of \$13,900 was awarded to allow Yanni Chin, one of the faculty's PhD students, to visit the laboratory of Associate Professor Emsley to develop new methods for determining the structure of integrin I-domain using x-ray crystallography. A postdoctoral scientist from Nottingham University will also visit the faculty as part of this award.

2009 Early Career Research award

Dr Bim Graham is the recipient of the faculty's 2009 Early Career Research award. This award recognises research excellence as an early career researcher within the Faculty of Pharmacy and Pharmaceutical Sciences.

Dr Graham has a growing independent research program in the Medicinal Chemistry and Drug Action theme within MIPS. His work centres on the development of novel metal binding ligands and bioconjugates – an area in which he has developed an impressive publication record over recent years. Dr Graham is now applying these technologies in key MIPS areas such as biomedical imaging (new metal chelating bioconjugates), cancer research (development of kinase assays), siRNA silencing and the development of artificial ribonucleases.

Dr Graham received this award because of his high quality publication record, grant success and contribution to research program development across the faculty.

Postgraduate study – can you afford not to do it?

Postgraduate study used to involve a significant financial investment for students. Recently the University announced that the Faculty of Pharmacy and Pharmaceutical Sciences is able to offer Commonwealth Supported Places (CSPs) to support eligible domestic students commencing in postgraduate coursework programs.

This means that faculty postgraduate coursework programs are more affordable than ever. At around \$3000–\$4000 per year, the new CSP places are less than half the cost of a full fee place.

These courses allow pharmacists and health professionals to meet their continuing professional development requirement while working toward an academic qualification. Importantly, the advanced and contemporary evidence and

research-informed education will also allow pharmacy professionals to develop the knowledge and skills required for career advancement.

For more information about postgraduate courses, eligibility and application details, visit www.pharm.monash.edu.au/courses or contact Kay Faunce on tel: +61 3 9903 9509 or email kay.faunce@pharm.monash.edu.au.



Susan Bury

(BPharm(Hons) 2001, BCom 2006)
Senior Pharmacist, Clinical Education
and Training, Austin Health

“Since registering as a pharmacist, I’ve undertaken commerce studies and worked in hospital pharmacy, community pharmacy and a leading professional pharmacy organisation.

My aim is to pursue senior management roles in hospital pharmacy and the broader healthcare sector, so I wanted a postgraduate qualification that would build on my skills and introduce me to new knowledge. I also wanted a course that would facilitate knowledge transfer in the workplace. The health economics and speciality

pharmacy practice components of Monash’s Master of Pharmacy Practice fit closely with these goals.

The masters degree provides me with the flexibility to select a great mix of subjects. And off-campus learning allows me to balance professional and personal commitments more easily than if I had to attend face-to-face classes.”

Postgraduate courses on offer in 2010

Coursework

Clinical Pharmacy

Masters	2 years part-time
---------	-------------------

The Master of Clinical Pharmacy provides pharmacists working in clinical settings with the opportunity to develop their skills in evidence based practice, quality use of medicine, practice based research and the provision of high level clinical pharmacy services.

Note: The next intake for this course is in 2011. Students interested in starting this course in 2010 should contact kirstie.galbraith@pharm.monash.edu.au.

Pharmacy Practice

Graduate Certificate	1 year part-time
----------------------	------------------

Masters	2–4 years part-time
---------	---------------------

The Graduate Certificate in Pharmacy Practice allows students to develop further knowledge and skills in a range of pharmacy practice related areas. The Master of Pharmacy Practice expands on this and fosters a deeper understanding of the different areas involved in pharmacy practice.

Wound Care

Graduate Certificate	1 year part-time
----------------------	------------------

Graduate Diploma	2 years part-time
------------------	-------------------

Masters	3 years part-time
---------	-------------------

The Master of Wound Care prepares health professionals for advanced practice in wound care. All the wound care courses are designed to meet the diverse needs of all health professionals with a responsibility and interest in wound care.

Research

Masters and PhD

Masters	2 years full-time
---------	-------------------

PhD	4 years full-time
-----	-------------------

The Master of Pharmaceutical Science and PhD courses are awarded for research in the areas of drug discovery biology, medicine use and safety, medicinal chemistry and drug action, drug candidate optimisation, and drug delivery, disposition and dynamics.

Where are they now?

**What are you doing now?
We'd love to hear your story.**

**If you would like to be included here,
email alumni@pharm.monash.edu.au
with your name and a short description
of what you've done since graduating.**

50s

Geoff Oscar AM (PhC 1955) married classmate Enid Baxter (PhC 1955) in 1956 and settled in Colac, where their two daughters were born. In 1959, they bought a pharmacy in Caulfield South, which they owned until 1986. Geoff completed his Fellowship of the Pharmaceutical Society of Victoria (PSV), becoming a councillor, president and then the first president of the Pharmaceutical Society of Australia. He was part of the negotiating team that led to the amalgamation of the Victorian College of Pharmacy with Monash University. In 1984, Geoff was awarded a Member of the Order of Australia for services to pharmacy. After studying accountancy, Geoff advised new businesses with the Small Business Development Corporation in 1987, becoming the Acting General Manager of Small Business Victoria. In December 1994, he was appointed Chief Commissioner of the City of Whitehorse, retiring in 1997. Since 1967, Geoff has been an active member of Rotary and was honoured with a double sapphire Paul Harris Fellowship. In retirement, Geoff enjoys days of golf with Enid, travel, photography and technology.

60s

After graduation, Leonard Levy (PhC 1960) took on a managerial position, followed by a partnership and ownership of his pharmacy in St Kilda. He was a delegate to the Pharmacy Guild in Victoria for 10 years, followed by 10 years on the state council of the PSV. He also served over 10 years as a member of the Pharmacy Board of Victoria. Leonard is currently a member of a panel of the Victorian Civil and Administrative Tribunal, deliberating on pharmacy matters. He has remained involved in education, first as a demonstrator and then as a preceptor, for over 35 years. He was instrumental in introducing the methadone program to Victorian pharmacists and was honoured by the Pharmacy Guild for his outstanding work. Over the years, Leonard has also held key roles at the St Kilda Welfare Association, St Kilda Community Health Centre, St Kilda Hebrew Congregation, Australian Rotary Health Research Fund for District 980, St Kilda City Council, City of St Kilda Chamber of Commerce, Scouts Australia and the Victorian Amateur Hockey Association.

Lyn Stanton (PhC 1967, BPharm 1969) first worked for the Henry Francis group at the Myer city store, then was employed by suburban pharmacies before giving up full-time work to have the first of her two daughters. For the next few years, she did locum work and helped manage her husband's graphics business. In 1990, Lyn returned to pharmacy work at Frankston Hospital, staying for almost six years. After that she decided on a career change and managed a specialist medical centre for three years while studying for a Diploma of Financial Planning. She went on to work as an investment analyst, staying in the financial planning industry for 10 years. Lyn retired in June and has enjoyed trips to Africa, Japan and South America over recent years. She has always maintained an interest in pharmacy and is looking forward to catching up with old friends in retirement.

70s

Gerald Quigley (BPharm 1970) married Philippa Hamilton (BPharm 1971) in 1972. He is an accredited herbalist and specialises in the integration of complementary medicines into prescribed medicine regimes. Gerald is the 'in-house' pharmacist on radio in Melbourne, on both 3AW 693 and Magic 1278, where he regularly discusses health issues from the patient perspective. He has worked in community pharmacy for almost 40 years and consults to a variety of companies, both inside and outside pharmacy. Gerald is a passionate supporter of competent and confident staff in pharmacy, and participates in a number of training initiatives.

80s

Kay Dunkley (nee Robinson) (BPharm 1983, GradDipHospPharm 1989) began her career in hospital pharmacy before having her children, and has since held various roles that focus on supporting pharmacists. She has worked for the Pharmaceutical Society of Australia (Victorian branch), the Victorian Drug Usage Advisory Committee, the Victorian Medicines Advisory Committee and the Victorian Therapeutics Advisory Group. Currently, Kay is the program coordinator of the Pharmacists' Support Service. This role led to employment by Australian Medical Association (AMA) Victoria to establish and coordinate their Peer Support Service. Over the years, Kay has continued in hospital pharmacy and today works at Sandringham Hospital. She enjoys the variety her different roles provide and particularly likes working with the volunteer pharmacists and doctors who give back to their profession through their respective support services.

80s

Following graduation, Skip Lam (BPharm 1983) spent four years working as a pharmacist in Malaysia before returning to Melbourne in 1988 to work in hospital pharmacy. For the last 10 years Skip has been Director of Pharmacy at Peninsula Health, where he has implemented a number of initiatives that focus on patient safety, including introduction of pharmaceutical reform at Frankston Hospital. Skip led his team in using research based clinical practice to address issues such as reducing medication errors and hospital readmission rates, improving the safety of delivery of medicines and patient care. Skip is a Fellow of the Society of Hospital Pharmacists of Australia and an accredited member of the Australian Association of Consultant Pharmacy. He has been a member of the Pharmaceutical Advisory Group of Health Purchasing Victoria since its inception and is now deputy chairperson of the Medication Management Advisory Group of the HealthSMART Clinical Systems project.

90s

Michael Gray (BPharm 1994) completed his traineeship at the Royal Children's Hospital before moving to Moe to practise community pharmacy. Michael is both a sole proprietor and partner in several pharmacies in Melbourne's outer east, Gippsland and Mornington Peninsula, and is a partner of the Prime and Advantage Pharmacy Groups. He spends his time overseeing the human resource function and training needs of Prime Pharmacy Group, with a specific focus on pharmacist managers and the group's intern program. Since completing his degree, Michael has undertaken further study at the Harvard Business School, Boston. He has also completed a graduate diploma in workplace law and is completing his *Juris Doctor* degree that will enable him to practise law if he chooses to do so. Michael retains ties with Monash by volunteering as a mentor to the faculty's Student Ambassador program. He is married to Melinda Folley (BPharm 1992) and has four children.

David Lau (BPharm 1995, MClinPharm 2005) is the Executive Director of Ophthalmology Services at the Royal Victorian Eye and Ear Hospital, and president of the Pharmacy Board of Victoria. He is also a director of North Yarra Community Health, and a councillor of the Australian Pharmacy Council. Together with the rest of the Pharmacy Board, he is currently focused on ensuring the public protections it has developed over the past 131 years are preserved beyond July 2010, when all the state pharmacy boards will give way to a national body.

00s

Lan Nguyen (BFormSc 2006) is currently working as an applications chemist at BASF Australia, evaluating and optimising research and development products from Germany and South-East Asia for commercialisation within Australia. She is primarily working in pressure sensitive adhesives and construction chemicals and has undertaken intense training in Germany to specialise in these product ranges. This role is market driven, so it is both laboratory and customer based, providing exposure to the wider workforce. In close association with the marketing team, Lan has the opportunity to develop and present her findings to clients.

Since graduating, Sharlina Lingam (BPharm(Hons) 2007) has completed her internship at Box Hill Hospital, where she continues to work. During this time she has worked in many different ward areas and in clinical trials. She has also taken on an education role, being involved in medical intern and student training at the hospital. Currently, Sharlina is the Student Placement Coordinator and is also involved with pharmacy intern teaching through Monash. Recently, Sharlina with friends and colleagues (including some Monash pharmacy graduates) formed a small charitable group called B-MPOWERED. Their first project, the 'Reach for your dreams' concert, raised \$15,000 for a public school in Victoria that teaches children with physical and mental disabilities. Sharlina's plans for the future involve travel as a pharmacist and further contributions to B-MPOWERED.

While Viki Lui (BPharm 2007) had originally planned to work in hospital pharmacy after graduation, she took her skills abroad to the public health system in Fiji instead. As a volunteer public health pharmacist, Viki looked at the rational use of antibiotics in hospitals and helped put together standard procedure manuals and medicine use policies. Returning home to a position as a clinical pharmacist at Box Hill Hospital, Viki ensures timely, accurate supplies of medicines to patients on wards, gives evidence based advice on the appropriate use and prescribing of medications, reviews medication charts, optimises medication use, monitors therapeutic drugs, and provides discharge medication counselling. She particularly enjoys the multidisciplinary aspect of hospital pharmacy, direct patient contact and positive impact that she has on patients' understanding of their health and medications. In the future, Viki hopes to complete a Master in Public Health specialising in pharmacoconomics and international health.



Wisdom in the Solomons

Recipient of the 2008 Mathew Peck Scholarship, fourth year pharmacy student Jane O'Connor, recently travelled to the Solomon Islands and experienced the challenges of practising pharmacy in a developing country.

"Last year the first recipient of the Mathew Peck Scholarship, Michael Nunan (BPharm 2006), contacted the faculty with an offer to host the 2008 Mathew Peck Scholarship recipient. For me, this was an opportunity too good to miss – having a host who knew what the scholarship was about and what it was like to be the recipient. Michael had travelled to Vanuatu in 2004 when he was awarded the scholarship and is currently working in the Solomon Islands for two years, developing and strengthening pharmacy services for the country's public health system.

I was based in Honiara, the capital of the Solomon Islands, and arrived in early December to stay for close to three months. Michael headed home for Christmas shortly after my arrival, for three weeks, during which time I was the only Australian in the pharmacy department of the hospital. This gave me a fantastic opportunity to learn Pijin, the national language, which is a mix of broken English and local language.

Working in the National Referral Hospital, it was amazing to compare what I knew of an Australian

hospital and what they manage to make do with in the Solomons. There are very few nurses and other staff, so the families of patients are largely relied on to take care of them and undertake roles such as feeding, washing and toileting. There is a ward round done each day, but the hospital is so overloaded that this brief encounter may be the patients' only interaction with professional healthcare for the day. Going on ward rounds was confronting for me, as malaria, tuberculosis and malnutrition were all present in the most severe degrees.

Toward the end of my stay I travelled to Malaita, one of the nine provinces of the Solomons, to conduct research on methods of stock procurement in rural clinics. This was an incredible eye opener. These clinics are based in small villages dotted along the only two roads in Malaita, the North road and the East road (the South road is semi-permanently flooded). They are run by nurse aids who have only a limited degree of health training and minimal equipment and stock (an average of nine of the 19 most highly used medications were out of stock at these clinics).

I spent a few weeks travelling to clinics with a local man from the National Referral Hospital, researching how these remote clinics procured their stock and what could be done to improve the process. I'm glad to say that the report I wrote on return to Honiara was subsequently used to secure SD\$240,000 (around A\$48,000) in funding for improvements to supply rural and remote clinics.

For me, this was genuinely a once in a lifetime experience. The Solomon Islands is a beautiful country, with some of the most friendly, relaxed people I've ever met. Unfortunately, this relaxed demeanour may be the basis of many of the country's problems. Sometimes an attitude based on 'it will all work out in the end' is not conducive to resolving significant national issues. However, the Solomon Islands is a truly beautiful nation of palm trees, white sandy beaches and wonderful people, and its progress in many areas is evident. I would like to especially thank all the wonderful people who made this trip possible for me."



About the scholarship

Mathew Peck was a pharmacy student who tragically passed away while travelling in South America. He was passionate about living and working in the developing world, as he knew of the mutual rewards that can be gained from the experience. The scholarship is a tribute to his life and his family established it in collaboration with the faculty to continue his ideals of commitment and contribution to international health. One scholarship per year is awarded to allow a pharmacy student to experience international health first-hand and directly contribute to an overseas health project.



Fourth year pharmacy student and student ambassador Suyi Ooi is the recipient of the 2009 Mathew Peck Travelling Scholarship. Suyi plans on travelling to Tonga to work on a project related to management of non-communicable diseases – a huge problem in the Tongan community.



WILDFIRE rural road trip a real eye opener

In August, 24 students travelled to Traralgon for the WILDFIRE (Working in Leading Development for Indigenous and Rural Education) student club annual rural road trip.



The road trip fulfilled its purpose, with students from the city, country and overseas joining together to lend a hand to those affected by the state's bushfires. Students spent the morning at the community relief hub in South Traralgon, preparing garden beds for vegetables and cooking up soup and lasagne for struggling families.

"The effects of the fires were surreal," said Alex Bongers, WILDFIRE president and third year Bachelor of Pharmacy student. "It was a huge eye opener to visit those areas."

After lending a hand, the students had a tour of Latrobe Regional Hospital – a great opportunity to see a rural hospital pharmacy in action.

Monash takes out the Australian HealthFusion team challenge

Fourth year Bachelor of Pharmacy student Ainsley Treadwell was part of Monash University's winning team at the Australian HealthFusion Team Challenge. This inaugural event is designed to educate students from across the healthcare professions in collaborative client care. Inter-professional student teams included representatives from a wide range of health professions who worked together over several weeks to develop a management plan for a complex clinical case study that reflects a national health priority.

The Monash team, which chose the name HOT (Holistic Outreach Team), won the award for Best

Management Plan and also took out the Audience Choice award.

"I am very thankful that I had the opportunity to compete and spend four weeks working with an amazing group of fellow future health professionals," said Ainsley. "It has given me a greater appreciation of how healthcare needs to be approached from a holistic point of view and, while as a pharmacist my primary interest and role is that of quality use of medicines, I must incorporate the roles of other disciplines to maximise quality of life for my patients."

Mollie Holman Doctoral Medal

Katherine Gray was awarded the 2008 Mollie Holman Doctoral Medal for the Faculty of Pharmacy and Pharmaceutical Sciences for her thesis *A pharmacological study of the mechanisms underlying prostate contractility in mice*.

The medal is awarded annually to a student in each Monash faculty who has fulfilled the requirements of the Doctor of Philosophy, meets an overall level of excellence and is deemed the best doctoral thesis for that calendar year. When determining the recipient of this award, consideration is given to the examiners' reports, the student's publication record and other evidence of research excellence demonstrated throughout their candidature.

The faculty chose to commend another PhD student for doctoral thesis excellence in 2008 through the award of a Dean's Commendation. Darren Creek was the recipient of the award for his thesis *Iron-mediated reactivity of peroxide antimalarials*.

Reunions

Class of 1954

The 55th anniversary of the Class of 1954 (students who finished study in 1953) was celebrated with a luncheon at The Gables restaurant on 9 August 2009. The group heard from Monash's Chancellor, Dr Alan Finkel AM, who was special guest speaker for the afternoon gathering. The class of 1954 has been meeting every five years since graduation.

Class of 1959

The 50 year reunion of the Class of 1959 (students who finished study in 1958) was held on 14 August in Cossar Hall. The golden anniversary celebration was enjoyed by all and was a great catch up for many who had not seen their fellow graduates for many years.

If you are interested in organising a reunion contact the alumni office, tel: +61 3 9903 9087 or email mikalia.gaskell@pharm.monash.edu.au.

Pharmacy + commerce = rewarding career

After completing 10 years of study, Lara Donovan (BPharm(Hons) 2004, BCom(Hons) 2007, BEc(Hons) 2009) found her dream job as a Research Fellow at Monash's Centre for Health Economics.



The job combines the clinical, analytical, economic theory and modelling skills she gained during her time at Monash. Lara continues to keep her hand in pharmacy, working part-time as a community pharmacist.

Lara is part of the commentary preparation team at the Centre for Health Economics, which prepares high quality commentaries on major submissions to the Pharmaceutical Benefits Advisory Committee. Each commentary involves

analysis and review of complex clinical and economic data and economic modelling. Based on these submissions and commentaries, the Committee makes recommendations to the Australian Government on listing products on the Pharmaceutical Benefits Scheme and the National Immunisation Program.

"I enjoy the pressure of working to a tight deadline and the vast range of experience offered by this job," said Lara. "Each major submission

presented to the Pharmaceutical Benefits Advisory Committee is different, with different theory and modelling techniques, and we need to find novel ways to approach their evaluation."

Completing a double degree at Monash was rewarding for Lara, who explained that she enjoys learning new things and expanding her knowledge base.

"Without the double degree I would most likely not be in my current role, as it's a specialised position requiring both clinical and economic knowledge as well as the ability to critically evaluate the statements made in major submissions," she said.

"I liked the small group feeling at the Faculty of Pharmacy and Pharmaceutical Sciences, where I got to know most of the students in my year. I particularly enjoyed the third and fourth years of the pharmacy course, when the theory became more applied and clinical.

"I also enjoyed the commerce degree at Clayton as it was vastly different from the pharmacy course, with different students in each lecture," Lara explained. "Clayton campus also had great sports facilities, including a gym and swimming pool! And although I specialised in economics, the broad business focus of the degree will help me if I ever decide to return to community pharmacy and manage or own a pharmacy."

As the population ages and the demand for chronic medications increases, the listing of cost-effective medications on the Pharmaceutical Benefits Scheme is important in containing its increasing costs. Lara is looking forward to the challenge of working with more complex economic modelling and extending her experience in health economics to deal with issues such as this.

"Health economics is a growing field, with opportunities for employment in academia, industry and consultancy," said Lara. "I'm not sure at this point where I'll end up, but I look forward to using my skills to the best of my ability in whichever area I choose."

Upcoming events

Faculty research seminar series

All seminars will be held in lecture theatre 3, Faculty of Pharmacy and Pharmaceutical Sciences, 381 Royal Parade, Parkville. The seminars are free and all are welcome. To RSVP contact Carolyn Fox, email carolyn.fox@pharm.monash.edu.au or tel: +61 3 9903 9622.

2009

Friday 30 October 4pm–5pm

Professor David Winkler
Senior Principal Research Scientist, CSIRO

Modelling complex biological systems – drug interactions, stem cells, biomaterials

Friday 13 November 4pm–5pm

Dr Betty Exintaris

Monash Institute of Pharmaceutical Sciences

Revealing the mystery of electrophysiology

Friday 27 November 4pm–5pm

Professor David Nichols
Purdue University, USA

Validating GPCR homology models constructed on an in silico activated beta adrenergic receptor template

2010

Friday 12 March 4pm–5pm

Dr Bim Graham

Monash Institute of Pharmaceutical Sciences and
2009 Early Career Research award recipient

Towards catalytic metallo-drugs

Friday 26 March 4pm–5pm

Associate Professor Bernard Flynn

Monash Institute of Pharmaceutical Sciences

Crossing over to the dark side: commercialising research in the drug discovery sector

Friday 23 April 4pm–5pm

Professor Susan Charman

Centre for Drug Candidate Optimisation, Monash
Institute of Pharmaceutical Sciences

Synthetic peroxides: a viable alternative to the artemisinins for the treatment of uncomplicated malaria?

Friday 7 May 4pm–5pm

Kevin Mc Namara

Centre for Medicine Use and Safety

Developing cardiovascular disease prevention models for community pharmacy

Friday 21 May 4pm–5pm

Associate Professor Kay Stewart

Centre for Medicine Use and Safety

Disease state management programs in community pharmacy

Friday 4 June 4pm–5pm

Dr Richard Pranker

Monash Institute of Pharmaceutical Sciences

Pharmaceutical applications of microcalorimetry

Friday 18 June 4pm–5pm

Dr Helen Irving

Monash Institute of Pharmaceutical Sciences

Serotonin: a simple molecule with multiple receptors and variants – can this complexity be used in drug design and treatment?

Retired Pharmacists group

This group meets on the last Tuesday of the month (February to November inclusive) 11am–1pm at the faculty. New members are always welcome. Attendance is open to pharmacists who are retired, semi-retired or over 50. Contact the alumni office on tel: +61 3 9903 9087 or email alumni@pharm.monash.edu.au if you would like to attend.

Alchemy, the alumni magazine of the Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, is published twice a year. The next issue is due for publication in May 2010.

The magazine is published for the faculty community, which includes alumni (both pre and post the Monash amalgamation), current and former staff, students and their families, and friends of the faculty.

To contact *Alchemy*, tel: +61 3 9903 9504, email alumni@pharm.monash.edu.au or write to *Alchemy*, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, 381 Royal Parade, Parkville VIC 3052.



By using products with the FSC label you are supporting the growth of responsible forest management worldwide.

This magazine is Forest Stewardship Council (FSC) chain of custody certified. This magazine is printed on Monza Satin Recycled, an FSC certified mixed source paper.

Cover image:

Fiona MacDonald
Moss 1994 (detail)
Offset print collage
45.8 x 35.5 cm
Monash University
Collection

