



MONASH University



Faculty of Pharmacy & Pharmaceutical Sciences

Alchemy

Issue 26/Summer 2014

**Swapping moon
cakes for Tim Tams**

**Kicking goals with
Joe Nicolazzo**

**'Worm pill'
could ease
autoimmune
disease
symptoms**



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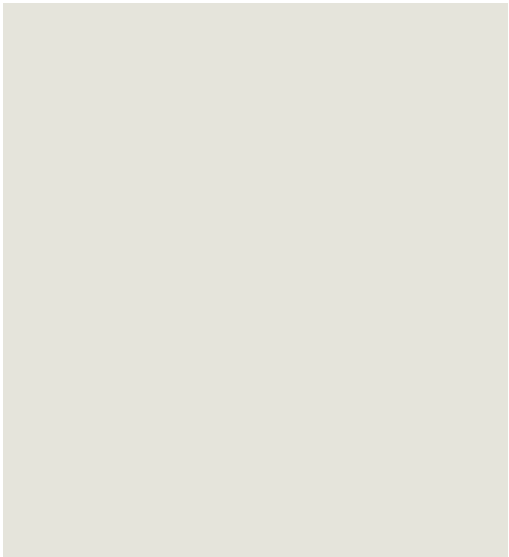
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From the Editor



Alchemy

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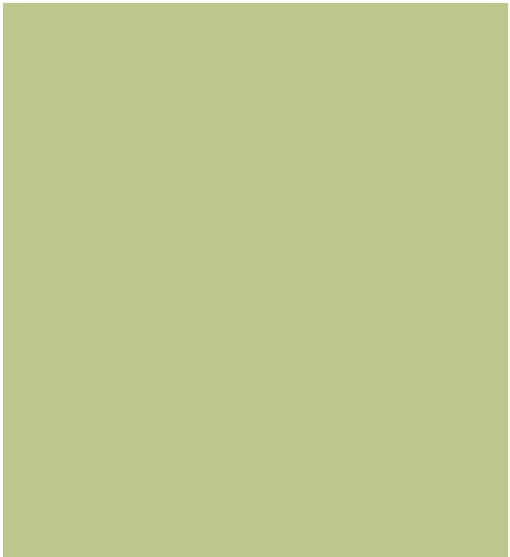
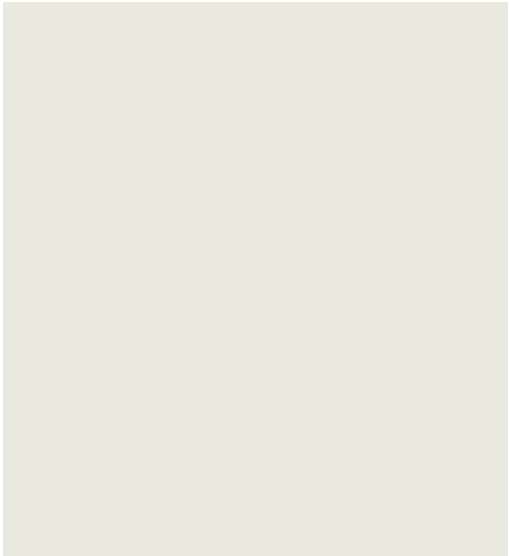
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Welcome to the Summer 2014 edition of *Alchemy*. This issue is packed full of news and interesting articles we hope you enjoy reading over the upcoming holidays.

In addition to providing a round-up of some of the exciting research breakthroughs that have occurred in 2014, we have highlighted some of our staff, students and alumni who have achieved success during the year.

We have profiled the Faculty’s soccer mad Joe Niccolazo. While we can’t identify a link between the world game and Joe’s interest in Alzheimer’s research, Joe is certainly making links between blood brain barriers and the cause of Alzheimer’s. If anyone is looking for a worthy cause to support with a Christmas gift in 2014, Joe’s research would be an excellent option.

Our cover story on Li Shen Ng resulted from an international recruitment visit to Malaysia to promote our two plus two arrangement with the Monash School of Pharmacy in Sunway, Malaysia. Li Shen is a remarkable ambassador for the arrangement and for pharmacy in general. We’ve also profiled one of the dynamic teaching staff members we met while in Malaysia – Dr Vivienne Mak, a senior lecturer in pharmacy practice.

Back at Parkville, we have written about research on parasitic worms that could ease autoimmune disease symptoms, highlighted a number of awardees – John and Nariel Ware for their work with the International Pharmaceutical Federation (FIP), Professor Bill Charman for his lifetime achievement award from FIP, Kirstie Galbraith for her Society of Hospital Pharmacists of Australia national honour and Victorian College of Pharmacy Foundation Chair Steve Marty for his Distinguished Alumnus of the Year Award – and also tracked down other alumni leading interesting lives while pursuing challenging careers. It really is a bumper edition.

On a personal note, this is my last *Alchemy* as Managing Editor. I’m passing the baton to our talented Marketing Manager, Justin Laing.

So I’ll take the opportunity one last time to wish you all Season’s Greetings and happy holiday reading.

Swapping moon cakes for Tim Tams



> LI-SHEN IN MELBOURNE

Swapping the Petronas Towers for the Eureka Tower and moon cakes for Tim Tams, Li-Shen Ng is immersing herself in Melbourne and loving every minute of it.

The third year pharmacy student has packed up her life in Malaysia and moved to Melbourne as a part of the two plus two exchange program and said that, so far, the experience has surpassed her expectations.

“Melbourne is an amazing place and there is always something to do.”

“The distinctive architecture and beautiful gardens are captivating but I find that the best of Melbourne lies in the outskirts – the scenery and views at Phillip Island, the Yarra Valley and Great Ocean Road are just breathtaking.

“Besides the magnificent landscape, I absolutely enjoy Melbourne’s brunch culture and couldn’t help but (attempt to) become a coffee connoisseur,” Li-Shen said.

The two plus two exchange was launched in 2014 and gives pharmacy students studying at Monash Malaysia the chance to study two years of their four year degree at the Parkville campus.

Li-Shen was initially studying at Parkville as part of an intercampus exchange between Parkville and the Sunway campus before hearing about the longer term exchange.

“I found out about the two plus two exchange while I was here on a one semester exchange and jumped at the opportunity to stay on for another two years.

“For me, it was an opportunity to experience a new culture and take advantage of the extra opportunities that come with studying at Parkville – the staff, the facilities, the research,” she said.

As the first student to pass through the two plus two program, Li-Shen is somewhat of a trailblazer for her classmates in Malaysia and said her friends still studying back home have shown a lot of interest in the program.

“I share some of my experiences on Instagram and Facebook, which is a great way of staying connected with my friends back home.

“Moving overseas to study is a massive investment both financially and emotionally, and the two plus two program helps alleviate some of those pressures.”

“I was able to transition into university life while still living at home. And paying the international fees for two years rather than four is less of a financial burden,” she said.

With the first year of the exchange coming to an end, Li-Shen has had time to reflect on a busy but brilliant first year.

“Looking back on the last 12 months, I’ve done so much, both in and out of the classroom.”

“

Looking back on the last 12 months, I’ve done so much, both in and out of the classroom.”

“I’ve made great friends, I’ve learnt from some outstanding researchers, I’ve explored new places around Australia and I undertook a really enjoyable placement at Geelong Hospital.

“But I have to say my favourite and most exciting ‘Aussie’ activity was watching a footy match at Etihad Stadium with my friends!”

With interest in the exchange program expected to grow, the Faculty is hoping to see more Malaysian pharmacy students coming to Parkville.

Professor Bill Charman, Dean of the Faculty of Pharmacy and Pharmaceutical Sciences, said the world is becoming a smaller place and opportunities for travel and collaboration across borders continue to grow.

“We work very closely with our colleagues in Malaysia and the exchange programs in place allow a seamless transition for the students.

“The course content is produced at Parkville, but taught at both Monash campuses, so no matter where the classroom is, students will get quality education, which leads to quality practitioners.

“It works both ways. We encourage our students to go out and experience a semester in Malaysia too,” he said.

Li-Shen had some words of advice for students considering an exchange in either direction and said the experience is only as good as you make it.

“Put yourself out there and actually make friends with the locals!

“It’s very tempting to just stay in your comfort zone and hang out with your mates from your home country, but trust me – the experience is a whole lot better when you make the most of it.” ●



Dr Vivienne Mak is a senior lecturer in pharmacy practice at Monash Malaysia and has studied and worked in both countries. She shared her experiences and highlighted the fondest memories of her time in Australia.

What are the best things about studying in each country?

Studying in Malaysia was great as I was closer to my family and friends but studying in Australia gave me the opportunity to experience new cultures and be exposed to a different learning experience.

To students considering studying in Australia, what advice would you provide?

It’s a fantastic and multicultural place to study, live and work and a place I call my second home. My advice for those wanting to study in Australia is to embrace not only the university culture but the Australian culture as well. Studying and working in Australia was one of the best periods of my life.

What are the top three things you recommend all Malaysian students try while in Australia?

Feed a kangaroo, watch a live AFL game and ski during winter.

And what about students in Australia considering a semester in Malaysia, any advice?

Malaysia is a vibrant country and a food paradise. If you’re interested in a gastronomical experience, learning about new cultures, towering skyscrapers but also want to experience cool highland getaways and forest life, a semester in Malaysia could be for you.

Your favourite memory of your time in Australia?

The people that I met made my experience much more enjoyable. But my best memory was winning the Pharmaceutical Society of Australia Young Pharmacist Award in 2010, which made my family and friends very proud.

Your plans for the future?

I want to stay in academia and continue to be involved in teaching future pharmacists. ●

Oxytocin project gains momentum



Researchers from the Monash Institute of Pharmaceutical Sciences (MIPS) are a step closer to making a breakthrough with potentially major humanitarian consequences.

A collaborative effort between MIPS and an international group of public and private organisations is set to accelerate the development of an innovative heat-stable and low-cost inhaled form of oxytocin to manage postpartum haemorrhage in resource-poor settings. Technology originally developed by Associate Professor Michelle McIntosh and her team at MIPS is being licensed to GSK as part of a collaborative agreement to co-develop, register and distribute the new medicine in regions of high maternal mortality.

Financial support secured over several years from trusts and foundations including Planet Wheeler and McCall MacBain, individual donors, the United Nations and Grand Challenges Canada (which is funded by the Government of Canada) will combine with a cash and in-kind contribution from GSK valued at US\$16 million to deliver the early phase development program.

The collaboration, announced during the United Nations General Assembly in New York in September 2014,

combines innovative science and specialist philanthropic commitment in an effort to accelerate progress towards potential implementation of an affordable, patient friendly product in countries with greatest need.

The funding will enable MIPS to complete its commitments in the early phase development program underway in collaboration with GSK. Over the next few years, this comprehensive program will include preclinical and early stage clinical trials, product optimisation, development of manufacturing processes, and research into local markets.

Director of MIPS, Professor Bill Charman, said the collaboration future-proofs major research.

“Thanks to the generosity and support of our partners, turning our research into a new medicine that has the potential to save lives globally is now within sight,” he said.

“This is an exciting and impactful time for all the organisations in this collaboration, and the many other donors involved in supporting the early stage of this important research. It will make a significant impact in improving maternal mortality rates in the developing world.” ●

Translating science into practice

When faced with a clinical situation for which there is no direct evidence, how do you practise quality use of medicine?

Using a series of case studies and vignettes ranging from his grandfather's gout to drugs in sport, Professor Andrew McLachlan from the Faculty of Pharmacy at the University of Sydney and Concord Hospital used the annual Barry L. Reed Distinguished Lecture to explore the role of fundamental insights in pharmaceutical science and how these can be translated into practice.

He told his audience that the choice of the best treatment option should be followed by the best rationale for the use of a medicine or not and when a medicine is used, evaluating how we might do that safely and effectively.

“Much of the required clinical trial evidence is missing, particularly if you're treating vulnerable patient cohorts such as older people, the very young and the critically ill,” he said.

“The principles of drug action give us a place to start when relevant clinical trial evidence is limited. The pharmacological plausibility – can it work – is actually a very important touch point when it comes to making decisions.



> EMERITUS PROFESSOR BARRY REED AND PROFESSOR ANDREW MCLACHLAN

“Understanding the mechanisms by which drugs do what they do, starts to tell us about how we can use a medicine safely, perhaps in a vulnerable patient.

“So the mechanism of drug action and the physiological determinants of drug response are essential bits of information to guide drug therapy and the quality use of medicines. Knowing how they interact with the body also becomes critical.”

Professor McLachlan pointed out that even when clinical guidelines are available, vulnerable groups such as frail older patients with multiple conditions are not always well served by guidelines that fail to account for multiple co-morbidities.

In situations such as these, Professor McLachlan urged consideration of all of the pharmacological information available for a medicine to guide the selection of suitable treatment options to achieve the best outcomes.

“It's common practice to think of the evidence practitioners use in hierarchies – the same hierarchies that are applied the development of clinical guidelines,” he said.

Professor McLachlan also cited Sir Michael Rawlins' Harveian Oration.

“When making clinical decisions we need to consider all the information we know and avoid simply adopting fixed rankings of evidence. Sir Michael Rawlins goes as far as to say that hierarchies of evidence should be replaced by accepting – indeed embracing – a diversity of approaches.”

In concluding his lecture, Professor McLachlan specifically addressed the role that Emeritus Professor Barry Reed had played in generating pharmaceutical science that has informed practice.

“Professor Reed's contribution as a scientist, innovator and collaborator made him a leader in his field,” said Professor McLachlan. ●

Top honours for a quiet achiever

Steve Marty is one of the genuine quiet achievers of the pharmacy world, holding a number of important professional roles in pharmacy over the past 30 years. But it is through his involvement as a member or chair of many important advisory committees and taskforces that Steve has left an indelible mark on the profession, both nationally and internationally.

On 23 October, Steve's work was recognised and one of pharmacy's most highly regarded members and Monash graduate (BPharm 69) was honoured by his alma mater with a Monash Distinguished Alumni Award.

Professor Bill Charman congratulated Steve on his award and highlighted the scale of his achievements.

"Steve is a very highly regarded member of the pharmacy profession whose talents, commitment and expertise have helped shape the landscape of pharmacy, both nationally and abroad.

"He is undoubtedly the most respected senior pharmacist in a regulatory role in Australia and a highly deserving recipient of this award," Professor Charman said.

Steve's career-long contribution to the profession and the wider community is outstanding, with a long list of achievements started after graduation back in 1969.

Following graduation, he practised in community pharmacy before being appointed as the first education pharmacist with a pharmacy board. In 1992 he was appointed Deputy Registrar of the Board and Deputy Branch Director of the Pharmaceutical Society of Australia, then Registrar of the Board in 1998. In 2009 he was appointed inaugural Chair of the Pharmacy Board of Australia and is currently Registrar of the Victorian Pharmacy Authority.

Throughout his career Steve has also been a visible and effective member of many consultative committees, reviews and working parties that have helped shape Australia's approach to the dispensing and regulation of medicines, the impact

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Steve is a very highly regarded member of the pharmacy profession whose talents, commitment and expertise have helped shape the landscape of pharmacy, both nationally and abroad.”

> STEVE MARTY



of medicines on mental health, the abuse of medicines and drugs and the labelling of medications. He has a significant international profile within the pharmacy profession through organisations such as the International Pharmacy Federation (based in The Hague) which represents over three million pharmacists worldwide and has made a substantial contribution to the development of state and federal legislation into the regulation of health professions.

Steve said that he was proud to have played a part in the continuous growth of the profession over what has been a long and rewarding career. "I feel humbled and honoured to receive this award and I'm very grateful for the

support and assistance I've received from my colleagues, board members, staff and the Faculty," he said.

Steve's passion and commitment to the profession has been a key influence on future generations of young pharmacists, particularly through his role as an adjunct professor at the Faculty. He has made a substantial contribution to the development of young pharmacists by providing education and leadership to undergraduate students for two decades, particularly in the areas of pharmacy law and professional behaviour. "I have greatly enjoyed working with students and interns to instil a risk based approach to legislation and to make the topic more interesting for them," he added.

Steve's contribution to research and education extends even further through his philanthropic involvement as a member of the Victorian College of Pharmacy Foundation Board (now the Monash Pharmacy Foundation Board) since 2011 and the chair since 2013. Under his leadership the Foundation has raised more than \$3,500,000 in philanthropic funds in a 12-month period.

Steve received the award at a ceremony in October and this will no doubt not be the last we hear from one of the pioneers of our profession. ●

‘Worm pill’ could ease autoimmune disease symptoms

The name could use some work, but a MIPS-led research project could see a ‘worm pill’ created that will change the lives of thousands of autoimmune disease sufferers around the world.

Experts believe a molecule in parasitic worms could help explain why worm infections can effectively treat a range of diseases, including multiple sclerosis, psoriasis, rheumatoid arthritis and lupus.

The study, published in the *FASEB Journal*, successfully identified peptides from parasitic worms that suppress the body’s immune response.

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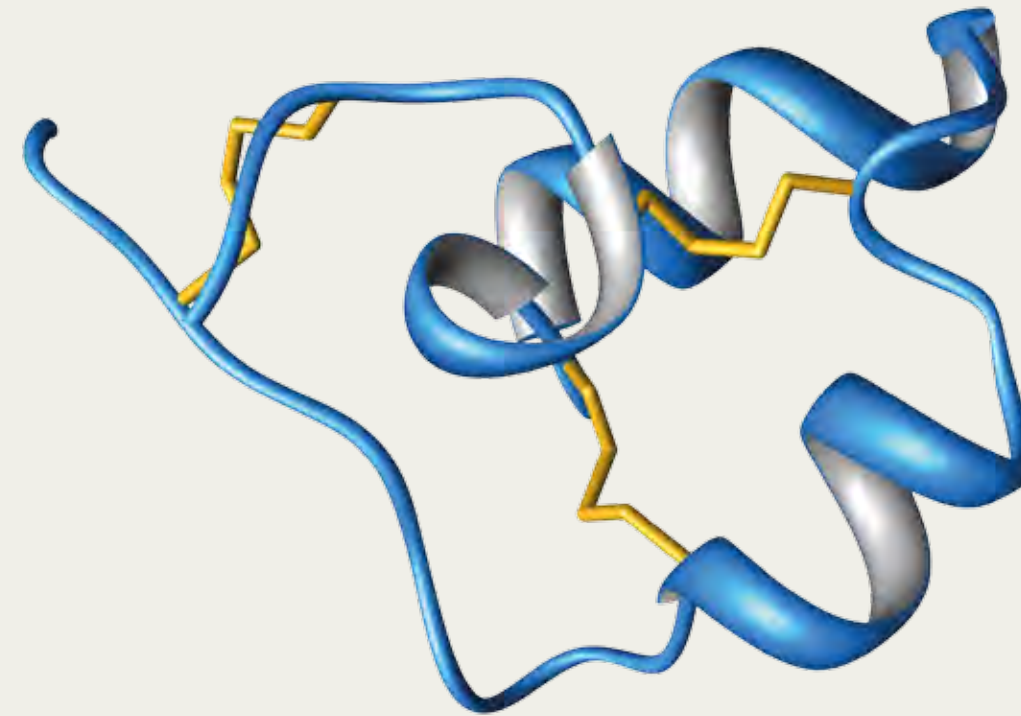
There are more than 80 autoimmune diseases, ranging in severity from mild to life threatening in some cases. While some affect mainly one area or organ, others can affect many parts of the body.”

Researchers believe this could pave the way for a new drug containing the peptide to provide relief from the symptoms of autoimmune diseases.

Affecting as many as one in 20 Australians, autoimmune diseases occur when a person’s immune system has an abnormal response against its own cells, tissues or even entire organs, resulting in inflammation and damage.

Lead researcher Professor Ray Norton from MIPS said experts around the world have yet to fully understand the causes of autoimmune diseases, which have risen significantly in parts of the world.

“There are more than 80 autoimmune diseases, ranging in severity from mild to life threatening in some cases.



> THE PEPTIDE FROM PARASITIC WORMS CALLED ACK1 WAS SHOWN TO DAMPEN THE IMMUNE SYSTEM

“While some affect mainly one area or organ, others can affect many parts of the body,” he said.

“Many people believe there’s a link between the rise in autoimmune diseases and an increased focus on cleanliness in western societies, because the immune system is no longer exposed to the broad range of infections that previous generations had to deal with.

“There could be some truth to this because worm infection is virtually unheard of in developed countries, yet the incidence of autoimmune diseases is high. But in developing countries the opposite is true,” Professor Norton said.

The new line of research offers an alternative to helminthic therapy, where people deliberately infect themselves with parasitic worms in an attempt to put their autoimmune disease into remission. It is thought that the worms have a calming effect on their host’s immune systems in order to ensure their survival.

Rather than using worms, the research team searched for the active components responsible for immunomodulatory effects in parasitic worms. By creating a cDNA library from the anterior secretory glands of the parasitic hookworm *Ancylostoma caninum*, they identified a peptide called AcK1 that dampens the immune system by inhibiting a potassium channel (Kv1.3).

Researchers found that AcK1 closely resembles ShK, a peptide from a sea anemone, which has been shown to suppress autoimmune diseases and is currently in clinical trials for the treatment of multiple sclerosis.

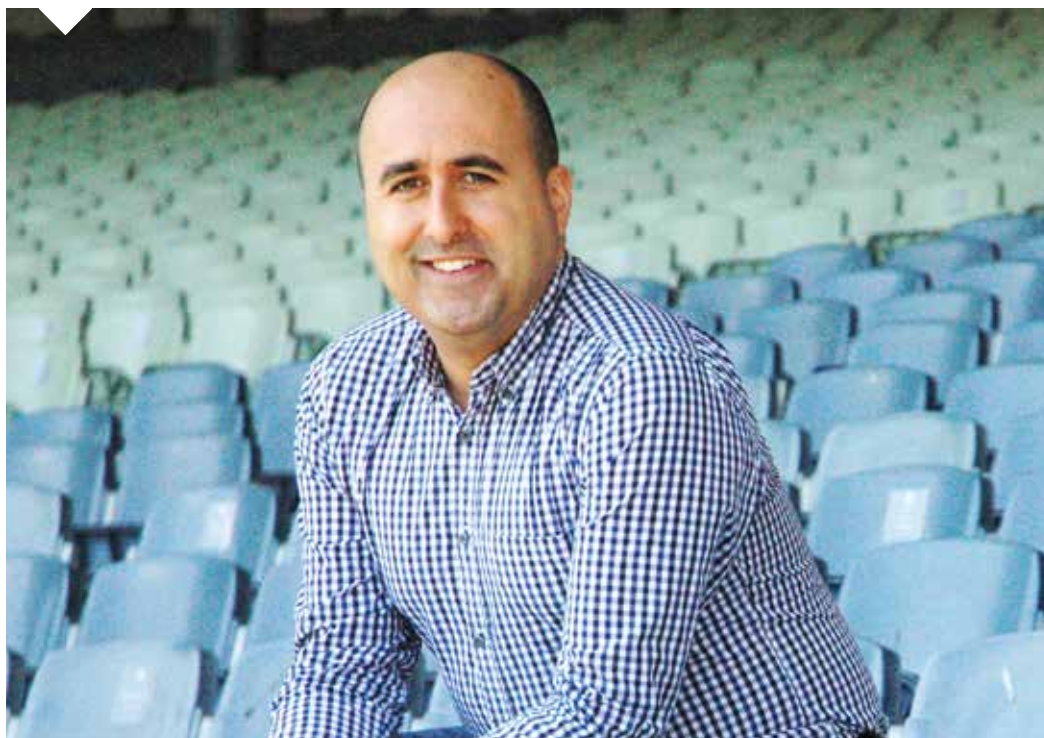
Dr Sandeep Chhabra from MIPS, said the study will help in developing new drugs to treat autoimmune diseases.

“Our research shows that it’s possible to identify individual molecules responsible for this beneficial effect,” he said.

“The next step will be to see if we can develop this into a pill that could dampen the immune system in people with an autoimmune disease. That’s a whole lot cleaner than putting a worm in your body,” Dr Chhabra added. ●

Q&A

Kicking goals with Joe Nicolazzo



1998 Gold Medallist Joe Nicolazzo sat down with the *Alchemy* team to talk Alzheimer's disease, football and words of wisdom from his Nonna Rosa.

What is your role at the Faculty?

I'm involved in teaching and research activities within the Faculty. I teach drug delivery material in both the Bachelor of Pharmacy and Bachelor of Pharmaceutical Sciences courses and I'm a researcher in the Drug Delivery, Disposition and Dynamics theme within MIPS.

Sounds like a busy role. How did you get to where you are now?

I practised for a few years as a community pharmacist but I wanted to be at the forefront of discovering new medicines, which led me back to the Faculty. I did an Honours research degree in transdermal drug delivery with Barrie Finnin, Barry Reed and Acrux and that led to a PhD in buccal mucosal drug delivery. After finishing my PhD I decided I wanted a complete change, which ultimately led to where I am today.

What is your current research focusing on?

My research focusses mainly at the blood-brain barrier (BBB), as a target for treating Alzheimer's disease, and ways in which we can overcome the natural barrier properties of the BBB and target drugs to the brain. So I like to describe my research in two parts:

1. The first challenge is understanding how the BBB clears amyloid from the brain, which is the main toxin that accumulates in Alzheimer's disease. Normally amyloid is trafficked from the brain into the blood by 'shuttle pumps.' In Alzheimer's, these pumps become dysfunctional. We're trying to understand why these pumps become dysfunctional and finding out how to increase the activity and levels of these pumps so we can more effectively clear the amyloid from the brain.
2. Once drugs are discovered, we then need to get them into the brain, and this is hindered by the BBB. So we're investigating what processes the

BBB uses to take important nutrients into the brain, and exploiting those processes to get new therapeutics into the brain when they are needed.

And how is the research progressing?

We're very optimistic. This research has the potential to lead to new approaches that haven't been considered before for the treatment of Alzheimer's. So far we've been able to increase the levels of these 'shuttle pumps' up to four fold at the BBB and this leads to increased trafficking of amyloid out of the brain and improved outcomes. The drug we're currently using is actually an existing medicine used for another disorder that has been shown in people to be protective against Alzheimer's. What we're trying to understand is how this particular medicine is increasing the pump activity and then design more specific drugs to target that trafficking process.

What initially drew you to Alzheimer's disease?

I've always been fascinated by the brain and the BBB. In the old days we were taught that the BBB is simply a barrier that prevents molecules from getting into the brain, but we now know so much more. It's the door that separates the brain from the blood and if it isn't working properly, it will cause problems, such as the build up of amyloid I was talking about before. It's a fascinating area and I believe it has a lot of untapped targets that are often overlooked for the treatment of diseases of the brain.

How does being based at MIPS help?

It's great to be in a place where we have key infrastructure, a collaborative environment, energetic postgraduate students and are part of the Parkville Hub, which allows for fantastic collaborations with other groups

in the precinct. I've also had some great opportunities to be involved in professional pharmaceutical science organisations. I was lucky enough to be the Chair for the Globalisation of Pharmaceutics Education Network in 2012, which brought 52 pharmacy schools from around the world to MIPS and a program Coordinating chair for the Pharmaceutical Sciences World Congress in 2014, where over 1000 pharmaceutical scientists were at our doorstep in Melbourne. This allowed us to showcase to the world the fantastic work that MIPS is undertaking, and provided great exposure for our research.

How do you enjoy the teaching side of your job?

I love it. I've always enjoyed teaching, ever since I took my first workshop as a PhD student. I really enjoy watching students have that light bulb moment when they understand a new concept. I'm the Drug Delivery stream leader for the Bachelor of Pharmacy course and that allows me to contribute to changing the direction of pharmacy education, which is ultimately shaping the pharmacists of tomorrow.



I really enjoy watching students have that light bulb moment when they understand a new concept.

Why did you originally choose to become a pharmacist?

A very interesting question. When I was a four-year-old boy (with hair), the local pharmacist was named Joe. He left and then came along another Joe (who is still in that same pharmacy). I thought it was my destiny that I had to be the next Joe in that pharmacy. But it was through my VCE studies that I became fascinated by medicines and how they were able to work in a particular part of the body.

What is your favourite place in the world and why?

I could say the Canadian Rocky Mountains, Doubtful Sound (New Zealand) or Rome. But I am most happy simply sitting in AAMI Park watching Australia's best football team Melbourne Victory, playing top quality football! And that's the real football!

What is the best piece of advice you have received?

"Treat every patient as you would want your grandmother to be treated as a patient".

And a quote from Nonna Rosa, "when it comes to food, don't ever worry about the price. You can go without other things in life, but high quality food is an essential".

How do you spend your time away from work?

I'm a bit of a green thumb and love gardening. I also love to travel, but like I said, I'm a big football fan and a loyal member of Melbourne Victory. So travel is very carefully considered between October and April, when the 'boys in blue' are shining.

Tell us something about yourself that your students and colleagues wouldn't know.

I actually never attended kindergarten. Some might say that explains a lot about me! ●

Celebrating a living legacy

The annual lunch recognising those generous supporters of the Faculty who have committed to leaving a gift in their Will was held this year in the President's Room at the RACV Club on 16 October.

A total of 26 alumni and friends of the Faculty joined Monash's new Vice-Chancellor Professor Margaret Gardner AO, and Professor Bill Charman for the event.

Professor Charman thanked the guests for their belief in the Faculty and for helping cement its reputation as the number one pharmacy and pharmaceutical sciences school in Australia and one of the best in the world through their support.

"Whether your gift will be in the form of generous undergraduate or postgraduate scholarships, or you've allocated funds to support key research areas, you can be confident that your philanthropic contribution will make a lasting and important difference," Professor Charman said.



Professor Gardner thanked donors for their faith in Monash and added that, throughout the university's journey, the support of all generous donors (whether financial or in-kind) has and will continue to play a key role in Monash's success and way forward.

Mr Peter Levy, Ms Sharon Hurst, Dr Susan Zammit and Mr Lewis Zammit were inducted into the Cossar Club at the event.

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Whether your gift will be in the form of generous undergraduate or postgraduate scholarships, or you've allocated funds to support key research areas, you can be confident that your philanthropic contribution will make a lasting and important difference”.

Simon says improve medicine use

They say success comes to those who are too busy to look for it and for Associate Professor Simon Bell, this saying could not ring truer.

Since graduating with a Bachelor of Pharmacy in 2001, Associate Professor Bell has managed to achieve more than most accomplish in a lifetime.

President of the International Pharmaceutical Students' Federation in 2003 and named the Australian Young Pharmacist of the Year in 2004, Associate Professor Bell has always gone above and beyond – an approach that has taken him around the world.

"I worked in community pharmacy in Sydney and for a short time in the UK before I completed my PhD in 2006. I then spent nearly five years in Finland, where I taught and researched at the University of Helsinki and the University of Eastern Finland."

He has been an advisor to the World Health Organization, given presentations on medicines use in more than 30 countries, is Associate Editor of the *Journal of Pharmacy Practice and Research* and has published more than 130 articles in peer-reviewed scientific journals. One of his recent achievements is being a lead investigator of the \$25 million National Health and Medical Research Council, Cognitive Decline Partnership Centre.

Associate Professor Bell now leads pharmacoepidemiology research within the Centre for Medicine Use and Safety.



"Our research group is primarily focused on studying the patterns and outcomes of medicine use, with a view to developing innovative services to maximise treatment outcomes and minimise the risk of adverse events," he said.

Simon is the inaugural chair of the Pharmacoepidemiology Special Interest Group of the Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT), and 2014 recipient of the ASCEPT Denis Wade Johnson & Johnson New Investigators Award.

"Much of our present work is focused on improving the use of medicines in older people, particularly among those with dementia and in aged care facilities. This is important because prescribing for older people is becoming increasingly complex. People with dementia are particularly susceptible to adverse events, but are often excluded from participating in clinical trials," he said.

Associate Professor Bell's team have received a series of grants from the Alzheimer's Australia Dementia Research Foundation and the Victorian Department of Health. The team also has an ongoing and productive partnership with Resthaven Ltd, a South Australian not-for-profit aged care provider. ●

Leaders in research and education

We recently honoured some of our finest educators and researchers at the 2014 teaching and research awards.

RESEARCH AWARDS

- Dr Karen Gregory was awarded the 2014 Early Career Research Award for her invaluable experience in translational neuropharmacology with specific insights into drug discovery for autism, schizophrenia and depression.
- For her ongoing work in the Inhaled Oxytocin Project, Associate Professor Michelle McIntosh was awarded the 2014 Award for Research Impact (Economic and Social), which recognises excellence by researchers who have achieved, or are currently achieving, outstanding economic and/or societal impact.
- Dr Lisa Kaminskas and Dr Chris Langmead were joint recipients of the 2014 Future Research Leader Award. This award is for researchers with up to 10 years' experience following PhD (or equivalent) with research leadership potential. Dr Kaminskas is an NHMRC Career Development Fellow, with a particular research focus on the treatment of lymph-metastatic and lung-resident cancers. Dr Langmead currently leads and manages the Servier program within Drug Discovery Biology.



> DR LAURENCE ORLANDO WITH DIRECTOR OF LEARNING AND TEACHING, DR IAN LARSON

- Professor Jian Li was awarded the 2014 Faculty Research Award, which recognises significant, long-term contribution to a discipline related to the Faculty's research priorities, and the achievement of international peer recognition. Professor Li has been at the forefront of polymyxin pharmacology and design of novel lipopeptides against Gram-negative 'superbugs' for 15 years.

TEACHING AWARDS

- Dr Paul White received both the Faculty Teaching Excellence Award and the 2014 Vice-Chancellor's Awards for Teaching Excellence in recognition of his individual contributions to innovative student

focused teaching and also for his leadership in implementing a faculty based approach to improving the student experience.

- Dr Laurence Orlando was awarded the 2014 Citation for Outstanding Contribution to Student Learning and 2014 Vice-Chancellor's Citation for Outstanding Contribution to Student Learning. Laurence's award reflects her commitment to education initiatives that enable development of career-ready graduates. This includes the creation of units with students guiding their own learning, around current knowledge of formulation sciences and around professional behaviour. Laurence challenges final year students to 'invent the professional within themselves'.
- Dr Safeera Hussainy was recognised for receiving an Australian Government Office for Learning and Teaching Citation for Outstanding Contribution to Student Learning. Announced by the Hon Christopher Pyne MP, Minister for Education, in September, the citation was awarded 'for innovative learning design that guides the development, assessment and feedback of pharmacy students' communication skills to increase employment readiness and fitness to practise.' ●

Drug Discovery 'à la Française'

The collaborative agreement between leading European pharmaceutical company Les Laboratoires Servier (Servier) and MIPS has been extended for a further two years, enabling successful projects to be taken to the next stage.

Established in 2012, the collaboration is investigating G protein-coupled receptors (GPCR) as targets for the treatment of major human diseases and is investigating various therapeutic areas including neuropsychiatric disease, metabolic disorders and rheumatology.

The team from MIPS is recognised for world-leading capability in GPCR drug discovery research. The collaboration is making use of this expertise in the identification of novel targets and insight into GPCR biology and medicinal chemistry. Professor Bill Charman, said the success of the first three years of collaboration has enabled Servier to make rapid decisions about drug

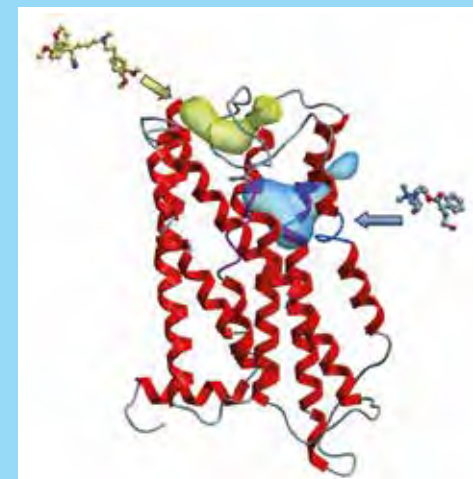
discovery projects in its portfolio, with projects completed on or ahead of schedule.

"In pharmaceutical industry terms the MIPS team of 15 equivalent full time staff is quite small, but we bring together technology, research facilities and world-leading scientists.

"Using integrated multidisciplinary approaches, the team has been able to proactively progress several drug discovery projects under the Servier agreement."

Dr Chris Langmead, Head of Servier Program in Drug Discovery at MIPS, said the partnership has been defined by active and engaging links between Servier and the MIPS team and is playing to the strengths of each party.

"We've established very close relationships with several groups at Servier and the relationship with MIPS has allowed us to bring a number of innovative approaches to Servier's portfolio."



> A G PROTEIN-COUPLED RECEPTOR (GPCR)

Servier is the leading independent French pharmaceutical company and is established in 140 countries.

More than 25 per cent of Servier's revenue is invested in research and development. Its main therapeutic products are used to treat diabetes, cardiovascular diseases, central nervous system disorders, oncology and rheumatological diseases. ●

Opening minds at Open House

Red carpet, live music, drug discovery and a walk of fame. It certainly was not a typical open day, but more than 1300 visitors joined staff and students at the inaugural Open House, held on campus at Parkville last August.

The colourful event has replaced open day on the campus calendar and Director of Development Margot Burke said the concept was about opening minds and sharing our work with the community.

“In addition to the usual activities aimed at secondary school students and their families, we wanted to host an event that had something for everyone.

“We had hands-on science experiments and interactive tours in our kids’ zone, live music and food stalls outside and our researchers on hand to share the latest research into cancer, superbugs, malaria and more.

“Speaking with some of the visitors, it was clear that the groundbreaking work being done within the Faculty had opened their eyes to the world of research,” she said.

Northcote High School student Nghi Nguyen was certainly impressed when she won a \$5000 study pack that was a major prize offered on the day. She attended the event to learn more about the pharmaceutical science degree and left with her intention to study at Parkville dependent only on achieving the necessary ATAR for entry.

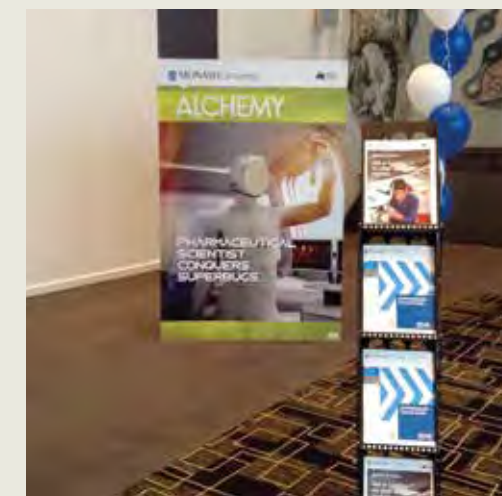
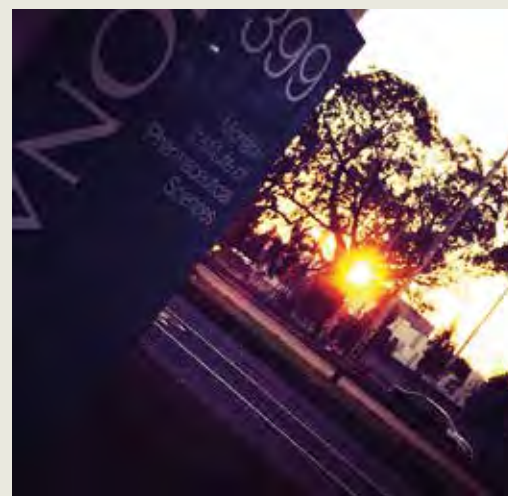
“Pursuing a career in pharmaceutical sciences where I get the opportunity to discover and develop new and different types of products in the lab is what I want to be doing in the future.

“I really enjoyed the event, but I just couldn’t believe that I’d won the competition. I could have exploded with happiness,” she said.

The ‘set to study’ prize pack included travel vouchers, cash, an iPad and a bike pack, which Nghi said will come in handy at uni.

“The iPad and bike will come in handy next year and although I can’t resist spending some of the money, most of it will be going to the bank,” she said.

Open House will be bigger and better in 2015 and has already been pencilled in for Sunday 16 August. ●



There is something about Mary

A lumna Mary Hemming (PhC 1967, BPharm 1971) has been awarded a Monash University Fellowship.

The award, one of 12 fellowships presented at the Fellows and Distinguished Alumni Awards ceremony on 22 October, recognises alumni who have made, and continue to make, a significant contribution to the life of the community through their professional distinction and their outstanding service.

“I’m very fortunate. My career has not only been rewarding, but also an absolute joy ... and I’ve had the opportunity to work with some amazing people,” said Mary.

Mary trained as both a pharmacist and an epidemiologist. She started her professional life as a hospital pharmacist working in major teaching hospitals, with a focus of optimising the use of medicines.

She was a key member of the Melbourne group that developed the concept of therapeutic guidelines in the 1970s and was appointed founding Chief Executive Officer of Therapeutic Guidelines Limited, leading its transformation from a government-funded venture into an independent self-funding not-for-profit organisation, before she retired in early 2012. ●



“

I’m very fortunate. My career has not only been rewarding, but also an absolute joy ... and I’ve had the opportunity to work with some amazing people.”

Retired Pharmacists’ Group

Q. Thinking about retirement and wondering how you’ll stay connected to community pharmacy, intellectually active, or socially engaged with your pharmacy peers?

Come join the Retired (semi-retired or soon to retire) Pharmacists’ Group.

Q. Who are we?

We’re a group of ex-pharmacists who schedule an annual calendar of speakers and activities. We’re supported by the Faculty of Pharmacy and Pharmaceutical Sciences, Monash University.

Q. Where are we based?

We’re based in Victoria, but anyone can join our group. We meet on the last Tuesday of every month (except January and December) at the Monash Parkville campus (easy parking and

public transport) for lunch and to listen to a speaker. Occasionally we venture out as a group to see some of the more interesting and lesser known points of interest in Melbourne.

Q. Want to know more?

To register your interest and receive regular invitations, contact Iliana Findikakis, iliana.findikakis@monash.edu or +61 3 9903 9087. For the full 2015 calendar go to monash.edu/pharm/alumni/touch/retired-pharmacists

What’s on in 2015?

Date/Time	Topic	Speaker	Venue
Tuesday, 24 February 11am	Strange tales of the Old Melbourne Gaol	Sylvia Campbell	Parkville Campus
Tuesday, 24 March 10.30am	Next Stop the Nursery – tour	Melbourne Tramboat Cruises	Melbourne City Marina Docklands
Tuesday, 28 April 11am	Trends in pharmacy education	Dr Ian Larson	Parkville Campus



International honours for globetrotting student

Parkville student James White was elected Secretary General of the International Pharmacy Students' Federation (IPSF) at the 60th World Congress in Porto, Portugal earlier this year.

A long-standing advocate for Australian pharmacy students, James has had extensive involvement within the National Australian Pharmacy Students' Association, IPSF Asia Pacific Regional Office and the National Rural Health Students' Network.

Professor Bill Charman, said the accolade was due credit for the hard work and commitment that James has displayed.

"To be elected to a position with the IPSF means representing Australian pharmacy on the world stage, a feat not many students can claim.

"We wish James every success in his exciting new endeavour," he said.



> JAMES DURING AN ANTI-SMOKING PUBLIC HEALTH CAMPAIGN RUN BY IPSF ASIA PACIFIC IN KUALA LUMPUR.

The position of Secretary General is responsible for the internal workings of the federation and delivers great organisational experience.

But it is the opportunity to travel and meet like-minded students that James sees as the real bonus from his work with IPSF.

"I've been lucky enough to travel across the world attending conferences and events in Holland, Portugal, Thailand and Malaysia and I would never have had the chance to do this if I didn't get involved.

"I've also met the most amazing people that I know I will be friends with for the rest of my life," he said.

In a busy year ahead, James will be travelling back to Holland in February, as well as attending the 61st IPSF World Conference in Hyderabad, India in 2015.

With a resume that continues to grow, James has the world at his feet, but at this stage he is still deciding exactly where his future lies.

"At the moment I'm still undecided on what I want to do with my degree.

"I definitely want to stay in the pharmacy and health field but most likely not in a traditional role.

"I'm really interested in mental health and drug and alcohol abuse and if I could find a job within these areas I'd be very happy."

Watch this space! ●

Pharmacy practice in the Pacific



A week spent co-facilitating a six-day seminar on clinical pharmacy with pharmacists in the Solomon Islands capital of Honiara has given Anne Leversha a renewed passion for pharmacy education.

With experience in China, Timor Leste, Vanuatu and Zimbabwe, the senior lecturer was well prepared for the workshops and told *Alchemy* how rewarding such a trip can be.

"The workshops educated participants about a range of topical issues relevant to the Solomon Islands community and focussed on the treatment of common medical conditions from a pharmacist's point of view.

"It also embraced the importance

of patients taking their medicines regularly and assisting with information concerning lifestyle changes that may be necessary to reduce the adverse effects of common medical conditions such as diabetes," she said.

The workshop comprised four days of lectures with practice-based topics including medication chart review, effective patient counselling, pain management and team building.

In speaking about the workshop Anne said, "We looked at how medication was used, and issues such as dosage and whether the medication should be changed."

Following this, two days were spent assisting the pharmacists with medication ward rounds at the National Referral Hospital.

One of the public health issues in the Solomon Islands is the incidence of asthma, so Anne shared some innovative solutions that were within reach of local pharmacists.

An example that exemplifies this introduced in the workshop was the making of 'asthma spacers' – a cost-effective solution to this problem.

"We produced an innovative solution that involved the use of modified soft drink bottles, something that can be easily managed locally," she said.

Anne has already received invitations to visit other Pacific island nations to conduct similar workshops. In the meantime, one of her colleagues based in the Solomons will continue to consolidate the clinical training undertaken in the workshop. ●

Pioneering pharmacist honoured by SHPA

A pioneer of pharmacy education, Kirstie Galbraith was one of the first to combine clinical practice with academia, working as a senior hospital pharmacist at the Royal Melbourne Hospital and as an academic at Monash University.

Since joining Monash in 1998, Kirstie has climbed the career ladder to become the director of postgraduate studies and had her achievements recognised earlier this year with the Society of Hospital Pharmacists of Australia (SHPA) Medal of Merit. The award acknowledged her outstanding contribution to the practice of hospital pharmacy and the professional development of pharmacy in Australia. A Fellow of SHPA and well known for her work and leadership in clinical pharmacy, Kirstie has also been an outstanding leader in education, particularly in the emerging area of the recognition of advanced pharmacy practice.

She has participated in SHPA's work on advanced practice, contributed to the work of the Advanced Pharmacy Practice Framework Steering Committee and been appointed to the inaugural Australian Pharmacy Council Advanced Practice Credentialing Committee.

“

Recognition of more advanced practice is a significant development for our profession, and this is a journey all pharmacists can take, regardless of where they are in their career.”



This work also extends to the international stage. Kirstie is currently the Domain Lead Competency (Advanced Practice) in the International Pharmaceutical Federation Education Development Team.

On receiving the award, Kirstie said she was honoured to be acknowledged and saw a bright future for pharmacy in Australia.

“I have the pleasure of working with a mix of young pharmacists who are new to the workforce and more experienced practitioners who are advancing their practice in a variety of areas.

“Recognition of more advanced practice is a significant development for our profession and this is a journey all pharmacists can take, regardless of where they are in their career.

“Students, interns, new pharmacists, and advancing practitioners are all supported by Monash. Our close working relationship with the profession and our alumni ensure we are working together to keep Australian pharmacists at the forefront of healthcare,” she said. ●

Top honour for Dean

Professor Bill Charman was awarded a Lifetime Achievement Award at the opening ceremony of the World Congress of Pharmacy and Pharmaceutical Sciences held in August 2014.

The prestigious honour is awarded every two years by FIP, which represents over three million practitioners and scientists around the world.

Professor Charman's research career began with his Bachelor of Pharmacy at the Victorian College of Pharmacy in 1981, and completion of a PhD in pharmaceutical chemistry at the University of Kansas in 1985. His research career has addressed major issues in drug discovery, drug delivery and the pharmaceutical sciences.

Over the last three decades he has been awarded many international professional and research awards and published over 350 scientific papers.

In accepting the award Professor Charman acknowledged the many people who

have contributed to his personal and professional development, but gave special mention to Emeritus Professor Barry Reed. During his undergraduate days Professor Reed singled him out and personally invited him to attend a special lecture. It was this lecture that inspired the now Dean of the Faculty to enrol for a PhD.

“All the opportunities I've had, and all the things I have been able to contribute, trace back to attending that one lecture,” says Professor Charman.

“As a pharmacist and a pharmaceutical scientist, I consider the opportunity to integrate the learnings and knowledge from these inter-dependent fields as the inspiring basis to strive for real-world impact in medicine design and patient care,” he added.

Professor Charman views FIP as the peak body worldwide for pharmacy and pharmaceutical science. He states that Monash University enjoys being a contributor to FIP because it replaces both the professional and the scientific practice of pharmacy. ●



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Where are they now?

What are you doing now?
We'd love to hear your story.
If you would like to be featured here,
email pharmacy.alumni@monash.edu
with your name and a short description
of what you've done since graduation.

Michael Barras – Class of 1989



Michael Barras has had some outstanding career achievements since completing his Bachelor of Pharmacy in 1989.

After undertaking his internship at Preston and Northcote Community Hospital, Michael embarked on a gap year – in his own words “long before Hamish and Andy”, before returning to work for Echuca Regional Health for three years and eventually making the move up to Queensland.

Throughout his professional career Michael has returned to study on a number of occasions, completing his Graduate Diploma in Clinical Pharmacy (2000) and working with some amazing mentors to complete his PhD (2010). Michael acknowledges his role as chair of the Research and Development Grant Advisory Committee as one of his busiest and his two year pharmacy residency in Sheffield, UK as the most fun!

When not following his beloved Collingwood in winter or the cricket in summer, Michael keeps himself busy as the Assistant Director of Pharmacy (Clinical) at Royal Brisbane and Women's Hospital, Associate Professor, School of Pharmacy at the University of Queensland and Associate Professor, School of Pharmacy at Queensland University of Technology.

Michael still enjoys many aspects of his role including clinical research, teaching and mentoring, but two of his biggest joys are outside of the world sphere – travelling and his family.

Caroline Le – Class of 2011



Caroline Le has come a long way since starting school not speaking a word of English. Completing her Bachelor of Pharmaceutical Science (Honours) in 2011, Caroline has already had a number of personal and professional achievements. During her Honours year, Caroline worked on neural stems cells. In awe of how intricate and complex the brain was, she became fascinated with the link between stress and illness.

While completing her PhD, Caroline won the Monash University 3 Minute Thesis competition in 2012, the Cooperative Research Centre Association's Showcasing Early Career Researchers competition in 2013 has co-authored a number of papers. She also featured in local media to talk about her work.

Caroline plans to continue her research in stress biology but also hopes to work on the communication gap between research and practice, as Caroline terms it, from 'bench to bedside'.

Judy Wilmot – Class of 1966

Judy Wilmot (PhC 1966) worked as a locum at many pharmacies before travelling overseas to work at Barts Hospital in London for 18 months.

On her return, she worked at the Peter MacCallum Institute for three years while completing her Bachelor of Pharmacy (1969). With the love of travel ignited, Judy again left her position to travel for another 12 months. After marrying and with four children, Judy spent almost the next 40 years working part time in both community and hospital pharmacies.

While hospital pharmacy was where her passion lay, the flexibility of community pharmacy allowed her to focus on her family life too. Prior to her retirement in 2011, Judy engaged in some of her most fulfilling professional work in outpatients at the Royal Melbourne Hospital, which she found very stimulating. Now retired, Judy continues to travel the world with her husband, including three years in the Middle East – although her favourite spot would be somewhere in the Australian outback with a campfire and beautiful scenery.

Sandip Manku – Class of 1995

When Sandip Manku (BPharm 1995) started his career as Pharmacy Manager for the My Chemist Group in Moonee Ponds, he could never have predicted the path it would lead to. An opportunity arose to move to the Goulburn Valley to run his own practice in the town of Tatura, population 2560. In the early 2000s, he relocated to the UK and completed his MBA while working as a hospital pharmacist in various locations.

Completion of his qualification opened up a range of opportunities that allowed Sandip to integrate his pharmacy background with business and management. He went on to work in a range of roles in industry and has now returned to Australia, working as Business Manager (Hospitals) for Dr Reddy's Laboratories.

Sandip thoroughly enjoys his work and in particular being able to use his scientific expertise in an industry environment. He currently lives in Bayside Melbourne and enjoys keeping active with his GP wife, two children and family dog.

John Ta – Class of 2004

John Ta has progressed in leaps and bounds from his days as Graduate Applications Chemist at BASF, the world's leading chemical company. Finishing the Bachelor of Formulation Science in 2004, John began his career focusing on formulation and product development in the area of architectural coatings. This was just the beginning for John, who has gone on to roles in a development laboratory, a chemical reactor site and in business management, which all led to his current role as Project Manager, Operational Excellence, leading major operational projects.

The most exciting aspect of John's career at BASF has been experiencing a wide range of positions within the company. He has expanded his core chemistry expertise to include a wide base of management skills. Outside work, John has a passion for travel and hopes to use the global reach of BASF to look for a long-term international assignment, giving his young family the opportunity of a lifetime!

Monash students go head-to-head in state final

After a gruelling final, Rachel Vorlander emerged victorious in the Victorian final of the Pharmaceutical Society of Australia (PSA) Student of the Year competition.

The first ever tie resulted in Rachel going head to head with fellow Monash student Rachael Leng, before taking the title in an additional judging round.

Aimed at final year pharmacy students, the competition recognises the importance of communication and counselling skills in best pharmacy practice.

Rachel was surprised by her win.

"I went into this competition with the aim of improving on my counselling skills and never thought I would get this far.

"I hope that winning this award will show future employers my strength in this area," she said.

Following the competition Grant Kardachi, National President of the PSA, said he was impressed by the level of expertise shown by the participants.

"These young pharmacists undergo a challenging counselling session as part of the competition and during this session. All competitors showed a great depth of clinical knowledge as well as empathy with the 'patient' – all of this was in front of their peers, which places added pressure on their performances."

"Congratulations to both Rachels," said Professor Carl Kirkpatrick, Head of Pharmacy Practice at the Faculty.

"To have the expertise of our final year students recognised by the PSA's judges is a great endorsement for our program and the graduates it produces."

Rachel said her friends have been very supportive and the Faculty's Dr Safeera Hussainy's guidance had been essential in preparing for the competition.



Campus expansion

On her first official visit to the Parkville Campus, new Vice-Chancellor Professor Margaret Gardner AO brought welcome news. Monash has purchased the adjacent land and buildings to the north of the Parkville campus (property known as 407-417 Royal Parade, Parkville) for \$10.9 million.

The property had been for sale for the past several years and long been on the Faculty's radar.

Its purchase will enable a significant expansion of the campus, ensuring the Faculty can confidently plan further education and research developments. Ultimately, the existing two-storey office complex will be demolished and a new multi-storey building constructed.

It is envisaged that construction will be supported by the University's capital fund and philanthropic contributions.



More honours for Louis Roller

Honorary Associate Professor Louis Roller (BPharm 1963), one of the country's leading drivers in developing Quality Use of Medicines standards as well as recognising the value of partnerships between pharmacists, GPs and patients, has again been honoured for his work.

He was named 2014 recipient of the Lifetime Achievement Award at the Pharmaceutical Society of Australia (PSA) Excellence Awards announced in Canberra in October, adding to the life member award he was presented by the Australasian Pharmaceutical Sciences Association in 2012.

Associate Professor Roller was recognised as one of the most effective and passionate advocates for the profession and he has influenced the profession both academically and clinically through the development of a patient-focussed pharmacy course.

He was instrumental in humanising the pharmacy course by shifting the emphasis from product orientation to patient orientation and championed evidenced-based practice and professionalism in pharmacy.

Although clearly honoured to win the award he was quick to pay tribute to his peers.

"I think I can sum up my attitude in the following way, I love my students and I love (warts and all) my profession of pharmacy.

"I feel this award is awe-inspiring. But I believe there are many more pharmacists out there who are equally worthy of it," he said.

PSA National President Grant Kardachi said Associate Professor Roller was a very worthy recipient of the prestigious Lifetime Achievement Award.

"Louis's passion for the profession and his love of teaching have had a very positive and long-lasting influence over the many thousands of pharmacy graduates he has taught.

"He has worked tirelessly to improve the education of undergraduate pharmacy students as well as pharmacy practitioners and this work has had a very positive impact on the health and wellbeing of Australians across the county," he said.

Associate Professor Roller joined the Victorian College of Pharmacy in 1963 and has served in a variety of academic and administrative roles including associate dean teaching, head of the Department of Pharmacy Practice, and director of the Bachelor Pharmacy program.



Vale, Marjorie Anne Stevenson (nee Lund)

For Marjorie Stevenson (BPharm 1954), pharmacy was in the blood with her mother Nita Lund and brother Lindsay also studying at the Victorian College of Pharmacy before practising in Melbourne.

In the 1954 Victorian College of Pharmacy year book, she said "There was no question in my mind that one day I would attend pharmacy college after leaving school. I had worked late afternoons and Sunday mornings in my mother's pharmacies in Mentone and Parkdale for some time, filling shelves, checking orders and finally being able to serve customers."

After graduation Marjorie travelled between many pharmacies in Melbourne doing relieving work before travelling overseas in 1958 to Europe for a three month working holiday. She obtained work at the Royal Free Hospital group mainly at Euston Hospital (London) Pharmacy Department for about nine months. On her return, she went into partnership with Lindsay, leasing a business in Sydney Road Brunswick from a friend who wanted to return to Italy for two years.

A complete change occurred when they purchased a business in Malvern on the corner of Glenferrie and Malvern Roads.

Customers there were used to having annual accounts, which created limited cash flow in the first 12 months, but they persevered and grew the business. The pair stayed in the Malvern pharmacy for five years then decided to sell the business as Lindsay was suffering from ill health and Marjorie was married with a young daughter and caring for her ill mother.

Marjorie continued to practise as a pharmacist until 1965 before retiring to raise her family of two. Her greatest passion remained women's golf, for which she received many accolades.



Vale, John de Ravin



Alumnus John de Ravin (PhC 1953) passed away on 26 October 2014.

Following graduation from the Victorian College of Pharmacy, John bought Tate's Pharmacy in Toorak in 1955. He practised community pharmacy for many years, subsequently working for the Commonwealth Department of Health.

John was passionate about the profession and the education of young pharmacists. He will always be remembered as a great friend and supporter of the Faculty and a true gentleman. He is survived by his children John, Anne, Richard, Mark and Andrew.

A new era in nanomedicine

A \$26 million dollar research centre designed to develop new vaccines and improve drug delivery and disease detection was launched at an official ceremony held in Cossar Hall on 28 August.

Funded by the Australian Research Council (ARC), the ARC Centre of Excellence in Convergent Bio-Nano Science and Technology was officially opened by ARC Chief Executive Officer, Professor Aidan Byrne. The ARC will enable researchers to work closely with industry partners to translate research and has the potential to deliver new diagnostics, drugs and vaccines for a range of conditions including HIV, cancer and malaria.

Guests from industry, education, research and government attended the launch event. Centre Director and Australian Research Council Laureate, Professor Tom Davis, told the guests that although bio-nano science is a relatively new field, it is one with extraordinary potential.



“Nano scale entities with dimensions thousands of times smaller than the width of a human hair are the essence of all living systems. If we are to better understand, treat and diagnose diseases we need technologies with nanoscale precision.

“We have the opportunity to trigger a biotech and medical technology revolution in Australia.

“By bringing together some of the country's leading researchers and combining this with cutting edge technology, the Centre will help turn this vision into a reality,” Professor Davis said. ●

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The last word



I would like to acknowledge our terrific staff and alumni who continue to achieve great things on the national and international stage.

I am thrilled to have the opportunity to reflect on 2014 – and how our ambitious vision, commitment to innovation and our shared passion for what we do is shaping a bright future for the Faculty, our alumni and the profession we serve.

Some highlights of 2014 include:

- The Inhaled Oxytocin Project having secured major philanthropic funding and a \$16.6M early phase development program in partnership with GSK and other partners
- Securing competitive research grants from the NHMRC and ARC of \$13.5M in the most recent grants rounds,; and the official opening of the \$26 million Australian Research Council funded Centre of Excellence in Convergent Bio-Nano Science and Technology Research
- Hosting 1,400 of the world’s top pharmaceutical scientists at the FIP Pharmaceutical Sciences World Congress in Melbourne, including a special symposium at our Parkville campus
- Our teaching staff have been acknowledged by their peers, industry and government – with a special congratulations to Paul White, Laurence Orlando and Safeera Hussainy
- Increased engagement with our broader community through a new Open House initiative that attracted more than 1,500 visitors to the Campus in August

- Alumni who received major professional recognition underpinned by their education and links to Monash include: James White, Mary Hemming, Steve Marty, Kirstie Galbraith and Louis Roller
- The purchase of the adjacent land and building at Parkville that will allow us to confidently plan for future expansion

I am thrilled to recognise and acknowledge our terrific staff and alumni who continue to achieve great things on the national and international stage. I applaud your collective achievements. I would also like to particularly thank our fabulous students, many of whom assist us with public events, conference set ups, recruitment activities and also share their ideas on how to make their time with us more rewarding.

Finally, I thank the Board of our Foundation for their on-going work and support, especially the retiring Chairman Mr Steve Marty who leaves the Foundation in a strong and enviable financial position. Season’s Greetings – and have a great summer holiday.

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