

OCTO<u>BER 2013</u>

REVEALING THOSE MOST LIKELY TO SUICIDE	REBUILDING ACEH	A HEAVILY GUARDED SECRET	STUDENT DAYS, CORPORATE VALUES	DEAKIN ALUMNI AWARD WINNERS 2013
MELDING THE BEST MINDS IN ART AND SCIENCE	CURING DEPRESSION	WHERE? IS THE CURE FOR MENTAL ILLNESS	RETAIL IS ALIVE AND KICKING	REAL WORK REAL TIME





Contents

What will be tomorrow Vice-Chancellor Professor Jane den Hollander and Ron Fa		
Revealing those most likely to suicide Professor Svetha Venkatesh	4	
Rebuilding Aceh Nazariah Sahu Palar	10	
A heavily guarded secret Jake Dingle, Matt Dingle and Ash Denmead	18	
Student days, corporate values Nino Ficca	24	
Deakin Alumni Award Winners 2013 Lindsay Philip Maxsted, Janet Dore, Hannah Katherine Macdougall, Ahmad Wamiq Ghowsi	27	
Melding the best minds in art and science Professor Kim Vincs	31	
Curing depression Professor Michael Berk	36	
Where? Is the cure for mental illness Associate Professor Felice Jacka	40	
Retail is alive and kicking Nick Mills	46	
Real work real time Lorri Cahill and Jamie Hewett	50	
Get involved	52	

DESIGN: RAPP Melbourne rapp.com.au

CREATIVE DIRECTORS: Steve Crawford, Murray Bransgrove

WRITER: Margaret Ambrose

PHOTOGRAPHY: Tracey Lee Hayes

PHOTOGRAPHY CREDITS:

Michael Berk story - Edge Geelong, Nick Mills story - The Pickers Union Cafe. Felice Jacka story - AAA Farms and Vegetable Growers Association of Victoria, S and A Piccolo. Telstra story -CC Containers Pty Ltd. Alumni story - Panama Dining Room.

Deakin University CRICOS Provider Code: 00113B



AS THE FIRST STUDENTS OF DEAKIN, THEY MADE THE UNIVERSITY THE UNIQUE AND WORLD-CLASS INSTITUTION IT IS TODAY. NOW, VICE-CHANCELLOR PROFESSOR JANE DEN HOLLANDER IS CALLING ON ALUMNI TO MAKE DEAKIN UNIVERSITY WHAT IT WILL BE TOMORROW.

Vice-Chancellor Professor Jane den Hollander often muses about the courage and faith of Deakin's original students. 'When Deakin started we had nothing," she says. 'Often universities begin as an institute or something else. But for those first students, choosing Deakin was a very interesting and brave thing to do. It's one of the defining characteristics of the Deakin alumni community.'

Since its inception almost 40 years ago, Deakin has built a reputation as being the university of innovation, creativity, flexibility and industry collaboration. That's created a unique alumni group, says the Vice-Chancellor, and that's why alumni are so important to the university's future.

'Our alumni are a very interesting group of people, who have come from all walks of life. We've always attracted a significant number of migrant populations, as well as mature age students. 'You know what they say, the gold is always at the bottom of the pyramid. Well, we've built the pyramid.

We have fantastic people, we have financial sustainability, we are exceptionally well managed – and yet we are hardly known in the world.

'Now, we have to show the world we are here.'

To advance Deakin University's standing at home and on the world stage, the Vice-Chancellor's first step was to employ Mr Ron Fairchild, who turned down a position at a major hospital in his native Canada, to head up Deakin's Advancement team.

'Right now we are focused on engaging different areas of the community, including our alumni,' says Mr Fairchild. 'The alumni are critical to this university.

'Deakin alumni can play plenty of roles in contributing to the future of the university,' he continues. We want our alumni involved in mentoring – students and other graduates; we want them engaged as advisors, where they help make decisions about courses; and we would love to have our alumni as donors.

'You can't say there's a typical Deakin alumnus – and that's one of the great things about the place – but they are all very proud.

'Deakin is Australia's best-kept secret,' says Mr Fairchild. 'This magazine is certain to enhance the Deakin pride. People will read these stories and be amazed and inspired, there are so many great things happening in so many parts of the university!

'The stories showcase the many strengths of Deakin and just how relevant it is as the world changes.'



Revealing those most likely to suicide from the most unlikely of places.

Professor Svetha Venkatesh is working to identify people in the Geelong area most in danger of making a suicide attempt. Yet she's not a doctor. She's not a psychiatrist. In fact she has never met nor diagnosed any of the people in that category. Professor Venkatesh is a computer scientist.

Under Professor Venkatesh's direction, the Centre of Pattern Recognition and Data Analytics (PRaDA) at Deakin University, in conjunction with Barwon Health, is developing a computer program that works on the myriad data collected by hospitals in the Geelong area, to help predict the likelihood of suicide.

'There are many problems that 'Big Data' can solve in the medical field,' says Professor Venkatesh. 'But we chose suicide prediction because, although risk factors are known, combining them to predict suicide attempts is difficult. It's not a disease where you can do a test and see results. Computer assisted tools providing clinical support in such problems are useful.' Professor Venkatesh and her team began their research project by taking the information gathered by hospital administration.

'Every time you go to hospital they code information relating to diagnosis, discharge, medications, procedures,' she explains. 'They have to collect all this information for administrative and funding reasons.'

The PRaDA team used this data with machine learning techniques to extract a set of features and their combinations to predict suicide attempts.

'Electronic medical records used to be about reducing paper,' says Associate Professor Richard Harvey, Clinical Director of Mental Health, Drugs and Alcohol Services at Barwon Health, who is working with Professor Venkatesh on the project. 'The next step, which is where we are now, is working out how to use the data we are collecting in more useful ways.'

'LOW RISK MIGHT INCLUDE MINOR SCRATCHES, WHEREAS HIGH RISK MIGHT BE DRIVING A CAR INTO A WALL OR TAKING DANGEROUS DRUGS.' That's where the Deakin/Barwon Health collaboration comes in.

'Barwon Health has a completely electronic medical record system,' he explains. 'But it has never been used in this way before. You might have gone to Emergency 20 times, and it will all be recorded, but when you come to Emergency, your doctor doesn't have time to go through years of records to assess your risk of suicide. They will make the assessment largely on what they see before them.'

The system devised by Deakin's data team takes all the information, including why people have attended hospital, number of admissions, the treatment they received and outcomes of the treatment, to assess the likelihood of suicide. 'It's pattern matching,' says Dr Harvey.

'Low risk might include minor scratches, whereas high risk might be driving a car into a wall or taking dangerous drugs.'

The data also records 'complete actions', where the patient has successfully suicided. 'Professor Venkatesh is able to compare the aspects of those events to other patients and estimate the level of risk.'

The beauty of this data analysis compared to clinician analysis is that its success is measurable. 'Professor Venkatesh's system is two thirds better in predicting high lethality suicide attempts over long terms,' Dr Harvey says.





'It's not about predicting suicide,' he stresses. 'It's about assisting those at immediate risk. It means that limited resources can be allocated more effectively and in a more targeted way.

Currently the system is being trialled. Deakin is sent the data – all names and identifying information is removed and replaced by numbers – and it is returned to Barwon Health with the analysis. The next stage is to have the system deployed to a clinical setting.

'When a patient presents at Emergency, the doctor will be able to click on a link and there will be charts and graphs, formed from all the information gained from previous events along with an estimate of the probability of a serious event in the next 30, 60 or 90 days.' Professor Venkatesh believes that the role 'Big Data' can play in improving health care is limitless. 'The partnership we have with Deakin and Barwon Health is fantastic,' she says. 'I moved here two years ago and we are doing many projects with Barwon Health – it is amazing. For example, in cardiac disease, we are trying to predict re-admission time after discharge.

We are also working on cancer mortality prediction. And we are just starting to work on predicting pre-term birth risk, so that mothers can be allocated the safest risk model.

'Suicide might be a very human problem,' says Professor Venkatesh, 'But it's great what machines can do in this space.'











HARNESSING THE RESOURCES OF DEAKIN UNIVERSITY'S INDONESIAN ALUMNI, NAZARIAH SAHU PALAR IS WORKING TO REBUILD THE QUALITY OF EDUCATION IN ACEH, FOLLOWING THE DEVASTATING 2004 TSUNAMI. NAZARIAH SHARES HER VERY PERSONAL QUEST.

When Nazariah Sahu Palar learned that in Aceh. the Indonesian province where she grew up, around 3,500 teachers and educators perished in the 2004 Boxing Day tsunami, she knew she had to do something. For this passionate young teacher, the idea of a generation of children missing out on a decent education was unthinkable. So, together with a group of Deakin Indonesian alumni, she set about making sure that education wouldn't end up being the invisible casualty of the natural disaster.

In December 2004, Nazariah was working as a teacher at the local high school as well as at a private education centre. On the morning of the tsunami, she was out exercising with friends. Nazariah felt the earthquake but had no idea what was to come.

'When we heard there was a tsunami we thought it was impossible!' she remembers. 'We had never heard of a tsunami except in Japan. Just before communications went down I got a call from a friend who was very close to it who said the Aceh Shopping Centre had just collapsed and I thought, no way!'

While Nazariah's town was safe from the sea, it wasn't spared the impact of the tsunami. 'My town is about eight hours from the capital city Banda Aceh so we didn't get the tsunami, but a lot of the victims came to my town because it is very safe, so there were people everywhere.'

Teaching the traumatised children of the tsunami was harrowing. 'Some students from the tsunami areas came to my school and we had some students who were experiencing issues. I don't like to use this word, but they were like zombies. It was hard to teach them, they didn't want to talk and they were reluctant to take part in study. Some of the students had no accommodation, no transport.'

Nazariah was concerned about what impact the loss of so many educators would have on the education system in Aceh and feared that the children who were already suffering would be further disadvantaged. 'I wanted the opportunity to contribute in some way to the rebuilding of the Aceh education system,' she says.

'The provincial government of Aceh had a memorandum of understanding with Deakin University that they would send some students to Deakin – about 50 students – from 2009. So I came to Australia and studied at the Melbourne Burwood Campus and in 2010 I graduated with the degree of Master of Teaching English to Speakers of Other Languages.'

On her return to Indonesia, Nazariah brought together a large group of Deakin alumni living in the country, and together, they began to offer professional development opportunities for teachers.

Working as part of a partnership between Deakin University and the Indonesian Government, they devised a course structure for using English as the language of instruction in class.

At the time, the Indonesian Government was running a program to raise the level of education in its country, and was encouraging and rewarding schools that taught in English. 'That's why we tried to help the teachers who don't have a background in teaching in English,' explains Nazariah.

'We constructed a two-week course for all teachers – science teachers, mathematics teachers, and also English teachers – on how to use English for instruction in class. This was well-received,' she explains. The project trialled in Nazariah's hometown, and soon the alumni had expanded it to include a component that would help disadvantaged children.

'We invited students from junior high school, who were disadvantaged, to come to our centre,' says Nazariah. 'We asked every school to send at least five students who had never undertaken an English course so we could give them an opportunity. So what we are doing is not just teaching, it is also assisting the wider community.'

Nazariah's desire to encourage and facilitate the education of children in her province is a deeply personal quest.

'My parents were not from an academic family,' she explains. 'I wanted to have an education but my parents couldn't support me. After senior high school I didn't go to university. I had a scholarship to go to university in Banda Aceh, but for cultural reasons, my parents thought it wasn't suitable for a girl. I knew I could do it, but no one would support me!

'I was working,' she says. 'I went to a school and they didn't have a sports teacher and I had done a little bit of sports so I said, 'I can do sports!' During that job I fell in love with teaching and then the next year I decided to go to a local university to do my teaching degree.' While teaching at a local school, Nazariah became committed to encouraging her students to study, especially those who, like her, were doing it despite limited support.

'With some of the students, their parents weren't very encouraging and when it came to exam time we would go a long way to pick them up and I would say to the parents, "Just wait one more week until exams are finished then you can have your child back!"'

It was while studying at Deakin that Nazariah had what she calls her 'ah-ha' moment. 'It suddenly all came together for me. All the things that happened in my life. I gained some theories and rationales to support what I did, and knew what I had to do in the future.'

Nazariah's commitment to giving back has been passed on to her students. 'I call my students my soldiers because they will do anything. They don't worry about payment, they accept what they can. They have built an organisation that is a voluntary one and is supporting students and their communities whenever they can.

'I always think: if I give you money you may spend it in one day but if I give you experience and learning it will last your whole life.'

In 2011, Nazariah Sahu Palar was honoured with the Deakin Alumni of the Year Award.

IT WAS WHILE STUDYING AT DEAKIN THAT NAZARIAH HAD WHAT SHE CALLS HER 'AH-HA' MOMENT. 'I KNEW WHAT I HAD TO DO IN THE FUTURE.'







Post-tsunami devastation.



'I always think: if I give you money you may spend it in one day but if I give you experience and learning it will last your whole life.'











JOINING FORCES WITH AN INNOVATIVE UNIVERSITY HAS TAKEN THREE YOUNG COMPETITORS IN A CAR RACE AND TURNED THEM INTO CAPTAINS OF AN EMERGING GLOBAL INDUSTRY.



As the engines revved and the drivers braced expectantly at the starting line, the team behind the Deakin University car had its eyes on another entry. The Swedish car in the Formula SAE, a program where engineering students from universities around the world design, build and compete small, open-wheeled vehicles, it featured a partial carbon fibre wheel. While the Deakin University team didn't win the race, it did start them thinking about carbon fibre wheels. Now that dream has morphed into what is set to become a giant multi-national corporation.

'In 2003 I was the academic supervisor for Deakin's Formula SAE,' says Matt Dingle, Technology Development Director at Carbon Revolution. 'We saw the car from Sweden and we decided then that we would try to do a full carbon wheel.'

At the time, the Deakin team wasn't really thinking beyond Formula SAE. 'We thought that carbon fibre wheels would be the ultimate in weight saving. So in 2004-5 we had a whole series of programs going on at the University trying to develop a carbon fibre wheel.'

What those programs initiated was the development of something



that car manufacturers had been aspiring to for 15 years – a full one-piece carbon fibre wheel.

'We call it a disruptive technology,' says Jake Dingle, Carbon Revolution's CEO and brother of Matt. 'If you go back 30 years, aluminium wheels really disrupted the steel wheel market and now in many regions more than half the share of wheels are aluminium. We see carbon fibre wheels ultimately doing the same thing to aluminium.'

Although the exact formula is a heavily guarded secret, Ash Denmead, Carbon Revolution's Design Director explains that the structural component is carbon fibre and resin.

'It's a very high performance material,' he says. 'It's very strong, it's very stiff and it's very light. The wheel is half the weight of an aluminium wheel. That's really good because it increases performance and efficiency. So you can accelerate quicker, you can brake quicker and because it is lighter it sticks to the road better so you have better grip when cornering. Your handling is improved and because there is less weight there is less noise and vibration transferred into the vehicle.



'Efficiency is a big part of it too because you can speed up and slow down quicker. You can get two to six per cent greater fuel economy by using this technology.'

In 2005 Matt left Deakin to set up an engineering consultancy with Brett Gass, another founding member of Carbon Revolution and ex-Ford Geelong employee. Realising the commercial potential of carbon fibre wheels, they then established the company Carbon Revolution Pty. Ltd. (formally CFusion) with Ash as another founding member. Ash did both his undergraduate degree and his PhD at Deakin ('I kind of never left.').

The founding members were convinced that they could master the creation of a carbon fibre wheel, and wanted to focus on coming up with a method that would allow them to mass-produce it and make it economically viable.

Initially, Matt, Ash and the team worked in collaboration with Deakin University's Formula SAE group, providing technical input and mentoring. When they successfully secured a federal government grant they started what is now Carbon Revolution.

Jake, also an engineer but with an MBA and a corporate background, joined the company in 2008 becoming its CEO in early 2010. 'I got a call from Matt who said his project needed commercial input. I knew what Matt was doing but I had never paid serious attention to it, because he is you know, my brother.'

With Jake on board, Carbon Revolution began carving out a niche in the automotive industry. 'There are two segments that we work in,' explains Jake. 'There's the after-market segment, which is where we sell our wheels to retail customers via a global distribution network. Then there's the work we are doing with major car manufacturers or OEMs (original equipment manufacturers). 'The OEMs we are now working with really have two levels of interest,' adds Jake. 'First, high performance cars at the top end of their portfolio. The second level of interest, and probably the primary long term focus, is the efficiency gains. We are talking to the very biggest car manufacturers in Europe and North America and will soon also be engaging actively with Japanese manufacturers.'

As the company grew, so did its collaborations with Deakin University. 'We have a relationship with Deakin on a whole series of levels,' says Matt. 'We have a research collaboration, where we fund post-doctoral research positions; we have six PhDs; and 10 out of our 40 employees have done undergraduate or postgraduate engineering degrees at Deakin.'

And now Carbon Revolution is looking to build its large-scale multi-million dollar manufacturing facility on the grounds of Deakin University in Waurn Ponds. It will take up to \$50 million dollars to build the facility over the next few years, and will eventually employ 300 people producing 250 000 wheels per year.

The new facility will also grow the level of collaboration with Carbon Nexus, the carbon fibre research centre currently being developed by Deakin University and the Victorian Centre for Advanced Materials Manufacturing.

'Our relationship with Deakin is very important,' stresses Matt. 'We need to keep leveraging those technology partnerships to keep ahead. It's a great source of talent – so apart from everything else, it saves on recruiting time and costs.'

'It's not just engineering,' adds Ash. 'There are a whole lot of resources that the university provides including robotics, automation, all that sort of research. 'It has been fantastic for the company working with Deakin,' says Jake. 'I don't know of any other university in Australia that works with industry like this.'

Despite global economic woes, the men from Carbon Revolution have big plans and high hopes for their company.

'One of the things that we have seen from the car industry since 2010 is the increased interest in something different like our wheels,' says Jake. 'It has become a hero product – a point of difference. Instead of cutting costs to stay in business, car manufacturers are looking at investing in new technology.

'Within 10 years we will have factories here and elsewhere producing up to a million parts a year.'

And even though they are remaining very focused on wheels, he says, the application of the technology has many forms and functions. 'Sixty three million cars are produced globally each year,' says Jake. 'Now multiply that by four.

And look at how many trucks there are in the world. Think about the economic benefit of halving the weight of their wheels. Then there are aircraft – where the economic benefits of a kilo of weight saving outstrip that of any land-based vehicle.'

Although they know there are several companies trying to learn their secret, there is a reason the men are not worried.

'In Europe or the USA, you just don't seem to find people with PhDs who are also very practical and good with their hands,' says Jake. 'Although really, our company started as four guys in a shed who were trying to build wheels. They just happened to have PhDs.'

'Within 10 years we will have factories here and elsewhere producing up to a million parts a year.' Nino Ficca, head of energy giant SP AusNet, talks about his student days, corporate values, and why he thinks Deakin is the university of the future.



WHEN YOU HAVE GOOD PEOPLE YOU NEED TO INVEST IN THEM AND DEVELOP THEM. When Nino Ficca speaks, people listen. As the managing director of SP AusNet, Victoria's peak provider of gas and electricity infrastructure, Nino is one of the most respected names in the state's energy industry. But today he's not talking about poles, wires or pipes, and he's not meeting with politicians or other heads of industry. Today Nino Ficca has taken time out of his busy schedule to talk about his other passion: Deakin University.

Born to Italian immigrants and raised in working-class Geelong, Nino attended the conservative St Joseph's College before studying engineering at Deakin University's Geelong Waurn Ponds Campus.

'There were engineering programs at other universities that were great,' he remembers. 'But Deakin, which was fairly new at the time, had a fresh approach to engineering. The lecturers were out of industry, not just academically focused but also offered a practical slant, which I felt was important.'

Nino found university life was a big departure from his strict schooling – and by his own account he relished his newfound independence. 'It was an interesting time, but not a unique experience,' he laughs. 'You go to uni and you find all this freedom.'

But, he says, with freedom came responsibility. 'University is not overly structured; it requires self motivation and management – if you don't hand in an assignment, bad luck. You become very attuned to managing your own time, effort and outcomes.'

'I'm also looking at the creation of mentoring opportunities, especially for women in engineering,'

Not everything that Nino learned from Deakin came from the lecture theatre. 'I learned pretty early on that I didn't have all the answers - and that didn't matter. If you want to do everything all yourself you will struggle. I'm a big believer in the power of teams. I have a great team around me now and I know that success is dependent on the whole team.'

Although long since graduating from Deakin, the university remains close to Nino's heart, and he is still involved with the university through the Deakin Alumni Community, as a member of the engineering advisory board, and in promoting a cause he is passionate about - diversity in the workplace.

'I'm working to improve the connection between university and industry,' he explains. 'I believe one of Deakin's strengths is that it is connected to industry. The blend of the theory and the practice is very beneficial, and if I can in any way facilitate this for current undergraduates, I want to do that. Part of that is working out ways for university courses to be flexible enough for students to work while they are studying.'

'I'm also looking at the creation of mentoring opportunities, especially for women in engineering,' says Nino.

'All organisations need to be open to different ideas. Uniformity is a fatal approach in business. I don't

think anyone has a mortgage on a good idea, so I think the more diverse the inputs and approaches, the stronger we will be.

'Whether it be minority groups or women, they have valuable contributions in moving forward.'

Nino says that diversity can only be achieved when organisations open their ears, not just their doors. 'It is listening to different people and hearing what their requirements are,' he says. 'We have a very high retention rate of women returning to work after maternity leave because we have the flexibility, including part-time arrangements, or even working some time from home. You must allow that contribution to keep going, not to end just because you have a family.

'When you have good people you need to invest in them and develop them.'

From his work with the Deakin Alumni Community, Nino hopes to see more young people, especially women, enter into the engineering field, through the industry-focused Deakin University.

RNING

'Engineering is enormously creative. If you cast your eyes around from where you are sitting, you can be very sure that an engineer has been involved in every aspect of what you are looking at.'







DEAKIN ALUMNI AWARD WINNERS

2013

Recipients of the annual Deakin University Alumni Awards are the most outstanding of a highly qualified, successful and dedicated alumni group. They have been selected by the Deakin University Alumni Advisory Committee for success in the area of service to their profession, service to their community or service to Deakin University.

Previous years' winners include wheelchair athlete Richard Colman OAM, Australian Ballet Director David McAllister AM, Indigenous Australian health and community worker Hannah Gentile and Nazariah Sahu Palar, whose work bringing together Deakin alumni in Indonesia to help rebuild tsunami-ravaged Aceh is profiled on page 10.

They come from different professions and different backgrounds, but they all have something in common: they are all Deakin alumni, and they are all inspirational.

DEAKIN ALUMNI AWARD WINNERS 2013





DEAKIN ALUMNI AWARD WINNERS 2013



AWARD CATEGORY: Outstanding Service to their Profession and Outstanding Service to the Community



AWARD CATEGORY: Outstanding Service to their Profession



AWARD CATEGORY: Outstanding Service to their Profession and Outstanding Service to the Community



AWARD CATEGORY: Outstanding Service to their Profession and Outstanding Service to the Communit

LIFETIME ACHIEVEMENT AWARD

Mr Lindsay Philip Maxsted chairman, westpac banking corporation

DIPLOMA OF BUSINESS 1974 (GIT)

Lindsay Maxsted is one of Australia's most respected and influential businessmen.

He currently serves as Chairman of the Westpac Banking Corporation; Chairman of the Transurban Group; Director of BHP Billiton Limited and BHP Billiton Ple and Managing Director of Align Capital Pty Ltd. Lindsay is also Fellow of the Australian Institute of Company Directors.

ALUMNI OF THE YEAR AWARD

Ms Janet Dore CEO, TRANSPORT ACCIDENT COMMISSION VICTORIA

MASTER OF BUSINESS ADMINISTRATION 1985 AND GRADUATE CERTIFICATE OF MANAGEMENT (PERSONAL INJURY) 2011

Janet began her career in local government, in her current role as CEO of Victoria's Transport Accident Commission (TAC), Janet Dore quite literally, saves lives.

Most recently, Janet became a member of the Expert Advisory Panel on the National Disability Insurance Scheme.

Janet is currently an advisory board member for Deakin's personal injury management course.

YOUNG ALUMNI OF THE YEAR AWARD

Mr Ahmad Wamiq Ghowsi

SESSIONAL ACADEMIC, DEAKIN GRADUATE SCHOOL OF BUSINESS, LANGUAGE INTERPRETER, ONCALL INTERPRETERS PTY LTD AND PUBLIC SPEAKER

MASTER OF PROFESSIONAL ACCOUNTING/ MASTER OF BUSINESS ADMINISTRATION (INTERNATIONAL) 2012

Ahmad Ghowsi sees community service as an important mission in his life. As a NAATI accredited interpreter with ONCALL interpreters, Ahmad works to provide vital communication and support programs for immigrants and refugees from Iran, Afghanistan and Pakistan.

Amongst his many achievements, in 2013 Ahmad founded Toastmasters International at Herat University in Afghanistan and is a past President of the DGSB Student Society.

YOUNG ALUMNI OF THE YEAR AWARD

Ms Hannah Katherine Macdougall PROFESSIONAL ATHLETE, MOTIVATIONAL SPEAKER, ATHLETE CAREER AND EDUCATION ADVISOR AND PHD STUDENT

BACHELOR OF EXERCISE AND SPORT SCIENCE 2011 AND BACHELOR OF COMMERCE (HONS) 2012

Hannah Macdougall first gained prominence when she won a bronze medal in swimming at the 2004 Athens Paralympic Games, for the Women's 4x100m medley.

Hannah is a dual Paralympian, swimming at both the Athens 2004 and Beijing 2008 Paralympic Games. She is also a former world record holder and has captained the Australian Swimming Team at both the World Championships and Paralympic Games.

Hannah is currently in training for the 2016 Rio Paralympic Games in road cycling.



A world-class animation studio in Melbourne is harnessing the best minds in art and science to lead the way in animation technology.

The deer handler corralled the two semi-wild animals while the technicians from Deakin *Motion.Lab* attached 75 'markers' to their joints using glue and velero. Instantly, the forms of the deer appeared on a computer screen, every move they made captured. This information would later form the basis for the creation of an animated deer. The next challenge for the Deakin *Motion.Lab* team was to get the deer to move in a way stipulated by the client in the brief.

'There were a certain number of moves that the company wanted,' says Professor Kim Vincs director of Deakin *Motion.Lab.* 'They requested a lot of ambient deer action.'

For Professor Vincs, capturing the motion of deer for a major beer commercial is just another day on the job.

Since the Deakin Motion.Lab opened in 2006, Professor Vincs has provided motion capture for electronic sports games, body armour testing, sports training, and dance projects, as well as advertisements such as the deer commercial for Toohey's Extra Dry. In addition to becoming a YouTube favourite, the advertisement has won Alt.vfx, the Brisbanebased organisation that came to Melbourne specifically to use the Deakin Motion.Lab, several industry awards including the prestigious Mobius Award.

Deakin *Motion.Lab* is one of only two facilities in Australia that provides motion capture, an element of animation growing in popularity thanks to films like *The Lord of the Rings* and *Happy Feet* and advertisements like Toohey's Extra Dry.

'Motion capture is the process whereby you put markers on a performer and record very precisely the trajectory of those markers in space,' explains Professor Vincs. 'A typical animation set up would have between 40 and 60 markers on a person and the markers surround each joint, so you can reconstruct the movement of that person's joints. That data is then transferred to a computer generated character.'

Motion capture is used to achieve very realistic human movement, particularly to embed the weight and intention of movement to animation. It's particularly valuable in games or films where an animated character has to interact with real people.

According to Professor Vines, motion capture is 50 per cent science and 50 per cent art and so it's hardly surprising that the team she has assembled at Deakin *Motion.Lab* is an eclectic collaboration of different disciplines and personalities.

'Just look at our open plan office!' she says. 'There are people doing

PhDs in dance, people doing PhDs in interactive performance, in developing artificial dancing agents. We have animators, we have programmers, and we have motion capture technical directors. In all the seats you see are people who are doing interrelated projects in performance technology.'

The conversations that come out of that diverse group, says Professor Vincs, might sound a little surreal to the outside world. Like the time the *Motion.Lab* was asked to do the motion capture for the 'Free Range Bread' advertisement for Abbott's Village Bakery, which was to feature loaves of bread behaving like animals on a farm. 'We had to think about what animal to use for the motion capture,' says Professor Vincs. 'What animal would best morph into an animated loaf of bread?'

The answer eventually came from Alt.vfx – Sammi the sausage dog. 'We love coming up with these sorts of solutions. This linkage of a cute animal and a loaf of bread – it's an interesting juxtaposition that really gets your attention.'

The Deakin *Motion.Lab* began as a collaboration between the Victorian Government, Deakin University, and Melbourne animation company Act 3 Animation, for the purpose of education, research and commercial engagement.



Toohey's Extra Dry commercial: 'They requested a lot of ambient deer action.'

Capturing the motion of deer for a major beer commercial is just another day on the job.





'We had to think about what animal to use for the motion capture,' says Professor Vincs. 'What animal would best morph into an animated loaf of bread?'

Motion.Lab was asked to do the motion capture for the 'Free Range Bread' advertisement for Abbott's Village Bakery.









'Like everything we do, there's an art outcome and a technology outcome.'

Just recently, one of their first graduates, Peter Divers, landed his dream job as a motion editor at Weta, Peter Jackson's studio in New Zealand, and he's currently working on the new *Planet of the Apes* movie.

The environment of collaboration that exists today, says Professor Vincs, was right there at the beginning. 'The lab came out of a teaching and learning grant. I brought together people from the engineering faculty, the Centre for Intelligent Systems Research, the IT faculty, all of the arts disciplines. We were looking for a teaching environment that would put students in a position where they would have to think about that art/science convergence. We went all over the world and looked at all kinds of technologies, and came back and said, motion capture is brilliant and right for us.'

The Deakin *Motion.Lab* is a research centre that works with the community in a variety of ways. The team has conducted research into sports training and rehabilitation, working with the AFL's Hawthorn Football Club. It has also studied the impact of body amour on movement for a defence contractor.

'Another project we are doing is with the Banyule City Council, measuring the impact of repetitive cleaning tasks for home care workers,' says Professor Vincs. 'We've built model showers to clean and we are monitoring the impact on movement.'

But the *Motion.Lab*'s niche is performance and dance technology.

Recently, the Victorian Opera came to *Motion.Lab* with the brief that they wanted to produce something 'really spectacular'. The result is the opera, *Sunday in the Park with George*. 'At one point in the opera, Georges Seurat's famous painting had to be brought to life by some wild technology that no one has ever seen before. So we did a one-minute stereoscopic, fully animated slot, in which the painting has a motion capture figure of the woman with the umbrella. The whole thing gets destroyed by these things flying through the painting in 3D. It's amazing.'

Professor Vincs is particularly excited about the possibilities that technology can provide for traditional performances. 'We do a lot of this work in stereoscopic projection,' she explains. 'So people wear these 3D glasses and these images appear around or behind the dancers. Taking it into 3D means that you can really amplify the sense of space the performer is moving in. You could have a landscape that looks like it goes way, way back. It's a fundamental shift in the aesthetic.

'We have artists come to us all the time. There are very few centres around the world that are as well equipped as Deakin *Motion.Lab*. But it's not just equipment, it's expertise. It's the seven years of experience that people are really coming to us for.'

Professor Vincs is particularly proud of a piece of technology her team is developing that allows a dancer to view a range of movements from several different angles as well as to follow the course of movement of a particular body part. The idea is that dancers can take their tablet into a studio to rehearse. The technology came out of collaboration with Aboriginal choreographer Monica Stevens who was working on an Australia Council for the Arts project to document Aboriginal and Torres Strait Islander dances.

Of course, as well as working with industry, sports bodies and dance companies, they teach. Deakin is the only university in Australia to have a motion capture facility and this year it launched a new course, the Bachelor of Creative Arts (Animation and Motion Capture).

'Motion editing is just one pathway for our students,' says Professor Vincs. '*Happy Feet* employed something like 30 motion editors. But if you understand the principals of motion capture, if you understand the aesthetics of it and what it takes to make a good artistic product with motion capture, then you can apply it to any of the systems that are coming down the development pipeline now.'

Just recently, one of its first graduates, Peter Divers, landed his dream job as a motion editor at Weta, Peter Jackson's studio in New Zealand, and he's currently working on the new *Planet of the Apes* movie.

The team at Deakin *Motion.Lab* predicts the future of motion capture will be all about robots, and true to form, *Motion.Lab* is right onto it. Currently the team is working with a PhD student who received an Australia Council for the Arts grant as a director to find out how technologies like robotics and motion capture could work in dramatic theatre.

'She chose Ibsen's Ghost,' says Professor Vincs. 'And she realised a 20 minute scene with the part of Mrs Alving played simultaneously by a robot, a motion capture performer and an avatar. That is a brilliant project for us to be able to push the boundaries of what is possible in terms of performance technology but it also forms the basis of our thinking about a whole range of cross motion capture and robotics.

'Like everything we do, there's an art outcome and a technology outcome.'







Forget Big Pharma, the next big mental illness drug might very well come out of a Deakin University Strategic Research Centre.

The pharmaceutical companies have really dropped the ball. That's the word from Professor Michael Berk, who heads up Deakin's IMPACT Strategic Research Centre. In an industry where the race is always on to discover the next big drug to patent, market and sell at a massive profit, Big Pharma's output in the area of mental illness has been strangely quiet.

'There has been a failure in the past two decades by the big pharmaceutical companies to find new drugs in psychiatry,' says Professor Berk. 'In the last 15–20 years there has been almost no novel drugs developed.'

Yet, with a fraction of the funding and resources, the Deakin University Strategic Research Centre is leading the way in the development of highly innovative clinical treatments for psychiatric illness. 'We have, I would say, the biggest novel therapy discovery program in Australian psychiatric research,' says Professor Berk.

Our biggest success recently has been with the antioxidant, N-acetylcysteine (NAC),' says Professor Berk. 'It is found in leafy greens, although we administer it in larger doses clinically. We have shown that it reduces the core symptoms of schizophrenia; that it reduces depression in bipolar disorder; and cases of major depression; and we have just completed a study on autism.

'What is also really interesting is that people who are taking NAC seem to smoke less than they normally do, so we can look at NAC as a possible treatment to aid smoking cessation. It's gone to places that we would never have imagined!' 'Given how few new treatments for common and serious mental disorders have been developed in recent decades, these discoveries are of real importance for those with mental illness and the clinicians who treat them.'

In addition to the NAC research. Professor Berk and his team are focusing on other novel therapies relating to the treatment of depression and bipolar disorder. In particular, they are focusing on agents that reduce inflammation, because both these disorders are associated with increased levels of inflammation. They are currently investigating the benefits of statins, a group of cholesterol controlling drugs, and aspirin, in the treatment of youth depression, as well as the benefits of minicycline, an antibiotic, in the treatment of adult depression.

Professor Berk says that treating mental illness has far greater implications than easing the suffering of the individual. 'If we can show that certain treatments are better at preventing the cascade of change that occurs as an illness progresses, that will have major social and financial implications.'

Although it's a field that Professor Berk himself describes as 'not sexy' ('No one is currently wearing a ribbon for schizophrenia!'), his research into novel therapies might just produce the long-awaited next big thing in psychiatry.

Anyone who is interested in participating in studies conducted by Deakin's IMPACT Strategic Research Centre can contact the centre at olivia.dean@barwonhealth.org.au

'No one is currently wearing a ribbon for schizophrenia!'

WHERE? IS THE CURE FOR MENTAL ILLNESS

Food for thought: the link between lifestyle choices and childhood depression.



Could junk food be contributing to an increase in depression around the globe? A team of Melbourne scientists is revolutionising the way the world's medical profession addresses mental illness.



There are few things that irritate Associate Professor Felice Jacka more than walking into the petrol station that looks like a candy store. Perhaps thinking about what developed and developing nations have allowed to happen to the world's food supply, does. Or seeing a McDonald's next to a primary school. Dr Jacka has reason to be irked, though. She knows something that some of us may have suspected but few have traditionally taken seriously - poor lifestyle choices are contributing to the global problem of common mental illnesses.

'Depression is one of the biggest public health problems of our age,' says Deakin University's Professor Michael Berk, who heads up Barwon Psychiatric Research Unit/ IMPACT Strategic Research Centre. 'In developed countries there appears to have been an increase in rates of depression and anxiety. But why this might be happening has never been really understood.'

Along with Professor Berk and his research team, Dr Jacka is at the global forefront of groundbreaking work looking at the links between common mental illnesses, depression and anxiety, in children, adolescents and adults, and lifestyle choices such as diet, exercise and smoking.

Their research is finally adding scientific weight to the notion that the apparent increase in global depression is linked to a decline in healthy lifestyle behaviours. 'We look at risk factors for psychiatric problems in the population and try to understand what the mechanisms that drive them are,' says Professor Berk. 'And what we have found is that important factors are nutrition, exercise and smoking.'

'It started in the west, where we have obesity levels of around 65 per cent, but now it's moving to the developing world,' says Dr Jacka. 'A generation ago type-two diabetes was practically unheard of in India. Today in India, a child born will have a one in two chance of developing type-two diabetes. And that change has taken place in just one generation.'

The link between diet and mental health should come as no surprise, says Dr Jacka, given that food nourishes (or doesn't) every part of the body, including the brain. 'But when I came into psychiatry research I was surprised to realise there was no rigorous scientific literature or investigations into the link between diet and mental health!'

Professor Berk has encountered the same brick wall. 'We know that smoking is associated with psychiatric problems,' he says. 'But people just don't pay any attention to it. Smokers have a clearly increased risk of having a first episode of depression.'

When he established the Strategic Research Centre in 2001, Professor Berk, like so many of his colleagues, was sceptical that the research would lead to any conclusive evidence. 'I had no idea when Felice started her nutrition work that diet would be consistently predictive of



The Strategic Research Centre is all about collaboration, which sometimes comes from the most unlikely of places.

mental health, and that it would be replicated in such a constant and reliable way.'

But yield results it did. The team conducted a cohort test in which a large group of women were given a semi-structured clinical psychiatric interview. From that they were able to ascertain their past and current mental health. The women also filled out a very comprehensive food frequency questionnaire.

'What I then did was look at the women's diets, their psychiatric status and then looked at the two together,' says Dr Jacka. 'And what we found was that the two were related.'

Although the team thought it was obvious in the psychiatric world this study was big news. A story about the findings was published on the front page of the prestigious American Journal of Psychiatry, with a big editorial that called it the most important study of the year.

'So from that I was able to go on and do more studies along a similar vein,' says Dr Jacka. 'I did a study with the Murdoch Children's Research Centre looking at adolescence and diet. We then did a study with the World Health Organisation (WHO) Collaborating Centre for Obesity Prevention, looking at how diet quality was linked to adolescent mental health over time. We found that when kids' diet quality improved, their mental health improved and the kids whose diet got worse, their mental health also got worse.'

Identifying triggers for mental illness in the young is the key to preventing a lifetime of suffering. 'The age of onset for common mental disorders is very young,' says Dr Jacka. 'The average age for onset of anxiety disorder is six and for depression it usually hits around adolescence. And of course once these conditions are in place they are very often recurrent. So our interest is in prevention.'

But they are up against it. 'Fast food products are cheap, they are very heavily marketed, and they have become normalised. Takeaway food franchises are everywhere.'

Ultimately, Professor Berk and Dr Jacka hope that their research will spur people on to talk to their politicians about legislating for change, which they believe is the only way change will occur. 'The only structures that can make any difference are the heads of state because everything below that doesn't have the power to address the trans-national food corporations,' says Dr Jacka.

The Strategic Research Centre is all about collaboration, which sometimes comes from the most unlikely of places.

We've received funding from the Meat and Livestock Board to thoroughly investigate what people with depression are eating and examine their nutrient status in great detail,' says Dr Jacka. 'Australian Rotary Health has also been absolutely essential in that they have funded some of the most important and innovative mental health research in Australia. One of the reasons that Australia is one of the leaders in mental health research internationally is because of Australian Rotary Health.'

Currently, Dr Jacka is leading a centre for research excellence application to the National Health and Research Council, with the hopes of receiving funding to set up a centre for research excellence that looks in more depth at lifestyle behaviour.

'It will join with one of the major players, the WHO Collaborating Centre for Obesity Prevention, looking at what we can do at a population level to change behaviours and how that might influence the prevalence of common mental disorders. We also collaborate extensively with other research groups in Australia, as well as with those in Europe, Asia and the USA.'

Dr Jacka and Professor Berk are in no doubt about the importance of their continued work. 'Of the burden of illness that comes with the changes to the world food supply – the prevalence of fast food, modern food processing etcetera – the head of WHO has said that there is no country in the world, no economy, that is going to be able to afford the cost of treating these illnesses,' says Dr Jacka.

'If we now add the burden of disability imposed by depression and anxiety to the list of illnesses influenced by unhealthy lifestyle behaviours, we can understand the urgency of the imperative to counteract the activities of the unhealthy commodities industry.'

But ultimately, they say, it's on the ground that they really hope to make progress. 'In the work we are doing it must make a difference to those suffering,' concludes Professor Berk. 'Otherwise we are wasting our time.'



ŝ

The most important study of the year.

> Associate Professor Felice Jacka





Deakin graduate Nick Mills is carving out a name for himself in fashion, while keeping a place in his heart for shoes splashed with paint.

He's created corporate logos and identities; he's designed prints for children's fashions; and he's headed up creative teams. For Deakin graduate, Nick Mills, creative thinking has taken him in directions he never imagined. Now he is striving to drive innovation at fashion retailer, Cotton On Group's latest project – The Farm.

Nick's current title might be Innovation – Concept and Project Manager, but he's worked in so many areas of the Cotton On Group business that it's difficult to imagine an area in which he has not, in some form, been involved.

'When I started at Cotton On, the business was one brand and 45 stores in Australia,' he says.
'We are now seven brands, eight including the Foundation (a registered NGO), with well over 1000 stores in 15 countries.'

Given that he has carved a successful career in fashion, it's difficult to imagine that back in his university days, Nick figured his career would be in corporate Australia.

'I just thought I would be doing logos and corporate identity stuff,' he says. 'I guess it's just a bigger area – there seems to be more work. Fashion is very difficult to break into, and there are so many people wanting in.'

Nick began his career studying fine arts and graphic design at Deakin's Warrnambool Campus. 'Design was always where I wanted to go, but I also loved painting,' he says. 'Spending three years painting and sculpting was to me a kind of dream. I just wasn't sure where I would go at the end of it.'

His decision to study at Warrnambool was based on a combination of location and lecturers. 'I had other opportunities but after my interview at Deakin Warrnambool, I didn't really consider anything else.

Warrnambool had a great community feel. So many people come from other places to study there. I was living in the southeastern suburbs of Melbourne and I really liked the idea of getting away from the city and moving to a small town. No one is training it in the morning and then training it back at night. You go to lectures, you go to the studio, you go to the pub. You live together.

'Meeting the lecturers also played a big part in my decision. You walk into your interview at other city universities and the lecturers are all in suits and ties. I walked into the interview at Deakin and the lecturer had paint on his shoes – I loved that.'

After graduating, Nick moved back to Melbourne and started looking for the 'Big Break.' 'For young designers it's a hard industry to crack,' he says. 'I had no plans to go into fashion or apparel, but I just kind of fell into it.'

After working some small low or no paying freelance corporate projects, Nick took a job at a then small children's wear label in Geelong, working across its branding and apparel artwork. When the owner was asked to come on board by Cotton On, she asked Nick to come with her.

At Cotton On I just worked hard and the role grew. I never got told I had a new role, one thing just led to another, and eventually I was managing a studio of 14 designers working across the group. But then, as we continued to grow, the design teams needed to move into each brand. It just got so big.' That's when Nick was asked to help set up The Farm.

'The Farm started as an innovation unit,' Nick explains. 'We are not here to be the ideas people, but be the people who grow the ideas. So anyone can come in here with a fresh idea and we look at ways of making it happen. Our key focus is to continue growing brands and categories.'

One idea to come out of The Farm was a Deakin collaboration – an internship program currently being developed between Cotton On and the university.

'We're looking at building a creative internship, which will be centred around an online magazine,' he says. 'We want to bring together designers, marketing students and maybe journalism or PR students, as well as digital designers. That team will become a sort of newsroom.

Basically, the magazine will dig deeper than just product descriptions. Rather than saying, 'We've launched a new label called Free, it's the tween label, here's a quick video', it will contain stories







about who's behind the label, what do they like doing on the weekend, that kind of thing. It's going to be especially important for our international offices. If we decide to send a new buyer to South Africa for example, they know the people there, what they are doing – even where the best place to get a coffee in the morning will be.'

'The magazine will be internal, on the intranet, for the first 12 months, but if it works well it could potentially move on to be external as well.'

Nick shares Deakin University's belief in the importance of industry-ready education.

'When I was studying at Deakin, part of the course was ex-students coming back and doing professional practice classes,' he says. 'They were people who were inside industry. They knew what realistically the industry is like. These guys are doing real jobs that you can see on actual billboards, in real magazines.'

Now that his career is reaching new heights, he wants to share his industry experience with the new generation of designers. 'Personally, I love working with young talent. The junior designers that I've worked with have got so much ability – all they need to know now is the industry.'



'The Farm started as an innovation unit,' Nick explains. 'We are not here to be the ideas people, but be the people who grow the ideas.'



With all the information he was getting live from the Australian Stock Exchange (ASX) and Bloomberg feeds on the trading wall and ticker in front of him, the young stockbroker was confident that he was about to make his client very wealthy and very happy. 'Buy! Buy! Buy!' he yelled. A few minutes and the release of disappointing financial forecasts later, the face of the same young stockbroker tells the story of someone who must now inform his client he has lost everything.

The reality though, is that in this scenario no one will lose a cent and in fact very much will be gained. When it is up-and-running in mid-2014, Deakin University's new ground-breaking project, the Telstra Trading Room, will provide students with invaluable knowledge and experience by allowing them to trade in currency, buy and sell stocks, and react to imagined scenarios, all using live data from the ASX, Bloomberg and other sources. And all without risking anyone's pension fund.

'The Telstra Trading Room is a high tech teaching space that will teach real-world financial modeling and concepts to our accounting and finance students,' explains Lorri Cahill, Deputy General Manager of Deakin's Faculty of Business and Law.

'The Telstra Trading Room is an innovative teaching tool, resulting from a unique collaboration between Telstra and Deakin University. Once completed, the room, which will be located at Deakin's Melbourne Burwood Campus, will look and function like a miniature stock exchange. Students will break up into small groups of three and each will take on a role that currently exists in the stock exchange including trading on currency or the futures market, depending on what they are learning at the time.'

Not everything is a simulation, though. 'What will not be pretence will be the decisions the students make,' says Lorri. 'Although it will be based on real feed from ASX and Bloomberg, students will have access to live market data from various sources, and their decisions will be informed by real information.'

The centrepiece will be the big trading wall with all the technology that entails,' explains Jamie Hewett, who heads up the project for Telstra. 'But we are also creating a teaching tool, where up to 15 teaching activities can be happening at the same time. Each of the little pods will have audio and video, so the experience can be recorded.'

'This provides the opportunity to close the feedback loop with the students,' adds Lorri.

The idea of a trading room began two years ago within Deakin's Faculty of Business and Law, but only became a viable project once Telstra came on board. 'We've never done anything like this,' says Jamie. 'We have done some simulations – but nothing as targeted as this.

'Deakin is one of our biggest customers in western Victoria,' he continues. 'As part of our contract negotiations we began looking at other ways we could work with Deakin. It was very appealing to us. Telstra could see where Deakin was going with their focus on real-world learning, and of course, Deakin is also at the forefront of digital learning.

'Eventually we decided this trading room would be the best outcome.'

The partnership agreement entered into between Telstra and Deakin, offers Telstra naming rights for the next decade and the room will showcase Telstra products to clients.

'There is a synergy between Telstra and Deakin, with both parties leveraging from each other.'

In addition to providing the students with realistic work experiences, the Telstra Trading Room will enhance the existing syllabus. 'It's designed to better embed the financial concepts the students are learning,' explains Lorri. 'So instead of being a textbook or online learning resource, they have a real world simulation where they can apply what they learn.'

The Telstra Trading Room has one objective in mind: work readiness. 'It will provide the preparedness for when students go out into their careers,' explains Lorri.

'We want them to have exposure to real world experiences.'

The value of 'real world learning' is immense, says Lorri. 'Students leave with a greater ability to compete in terms of employment opportunities; they have a greater appreciation of the work they will

The idea of a trading room began two years ago within Deakin's Faculty of Business and Law, but only became viable with Telstra's philanthropic support.

be going into; and they are better placed to contribute to that.

'Providing an insight into the area the students are going to be working in is one of the most important strategic goals of the university – the work-ready graduate.'

Lorri says that it is this focus on education and industry training that is unique to Deakin. 'The real life experience that we provide also sets Deakin apart.' The University is currently working towards two international accreditations, the criteria for which are increasingly focused on innovation and industry collaboration. 'Facilities like the Telstra Trading Room place us well on the international stage.'

While it might be a progressive and state-of-the-art teaching tool, Deakin sees the Telstra Trading Room as eventually expanding in its use to also become available to companies and industry for training purposes.

But for now, its role is to provide Deakin students with an incredible real-world experience. 'Our courses won't be the traditional I'm-goingto-stand-at-the-front-of-the-classand-teach-to-you model,' says Lorri. 'It will be small group learning, with problem solving and engaged students.'





Your connection with Deakin University doesn't end when you graduate. Our Alumni Community program is designed to offer meaningful lifelong engagement. So as your life and career paths advance, we'd like to stay in touch.

As an alumnus, you have access to many exclusive benefits and services. From network connections, career development and mentoring opportunities to events, the "dKin" Magazine and online resources, our program is tailored to your needs.

The success of our program depends on your participation. We invite you to learn more about our offerings by registering online, membership is free – visit deakin.edu.au/alumni

Networks

With more than 170,000 alumni in over 105 countries, Deakin has a vibrant alumni network. Our networks are groups of graduates that have been formed based on shared interests, field of study (faculty/school) or geographical location.

These networks provide alumni with opportunities to connect through organising social events and reunions as well as to undertake professional development and networking. We encourage alumni members to participate in the various activities offered by our networks and to join in and contribute to their management and development. New networks are being established all the time so there is one to suit you!

Upon joining as an alumni member, you will automatically be assigned to your related network memberships.

Alumni Postgraduate Course Fees Bursary – Enrol Today!

In support of our commitment to providing lifelong learning opportunities for our alumni globally, their children and/or spouse can now receive a 10% bursary off the cost per unit of postgraduate studies. This offer is only available on new award course enrolments during the 2014 and 2015 academic years and covers the duration of the chosen course. Conditions apply.

Alumni events

Deakin Alumni Relations coordinates a range of events both locally and internationally for graduates of the University. Deakin alumni are encouraged to participate in some of the 100 events held globally each year.

Most of these events are free of charge and provide wonderful opportunities for our alumni to network, interact and socialise. Professional development seminars are facilitated by industry experts, who in many cases are Deakin graduates themselves, across many different sectors and disciplines.

Deakin Alumni Awards

Our distinguished Alumni Community Awards are held annually to recognise, acknowledge and promote prominent alumni around the world who have achieved outstanding success within their career or community by demonstrating leadership and achievement.

The awards are presented at a gala event in Melbourne around October every year.

Career mentoring

Deakin's Career Mentoring Program is a free online career resource designed to strengthen global links between our alumni, staff, current students and industry by providing career progression advice and assistance through networking.

Library membership

No matter where you are, you can access a number of library and information resources through the Deakin University Library or online at discounted rates. Alumni members can sign up today at deakin.edu.au/library/join. If you are a first time alumni library member, please take advantage of the first 12-months' free membership offer now available.

Support Deakin

Deakin continues to receive generous support from friends and alumni worldwide. This has helped the University to augment funding provided by the Federal Government and maintain the quality of its educational programs and learning environments.

In the future, the University will be increasingly reliant on your financial support to continue to fund new programs, research, scholarships and facilities.

There are a number of ways you can give to Deakin, they include:

- Student scholarships Deakin is committed to offering educational experiences that widen participation and support students from diverse backgrounds. Help students access, participate and achieve through higher education by giving to the Change 100 Lives scholarship fund.
- Grants and donations your donation may be in the form of a monetary grant or a gift of a significant item, for example the giving of a historic book collection for the library, an artwork for display or materials for use in education and research programs. You can also direct your gift to a particular program, initiative faculty or centre.
- Major gifts the gift of learning and pioneering research is changing lives now and into the future as well as making a difference to communities here and around the world. A dedicated team works closely with donors to match areas of interest with Deakin funding priorities to ensure your gift has a lasting impact.
- Planned giving an estate gift is much more than a financial decision. It's a personal statement about who you are and what you care about. You can give to Deakin through bequests and trust distributions leaving a lasting legacy to assist students, research and the University, transforming the lives of future generations.

For more information on Giving to Deakin, visit deakin.edu.au/giving or email giving@deakin.edu.au

Central Alumni Office

The Deakin Central Alumni Office is established to oversee, provide specialised support for and co-ordinate the alumni activities and communications of the members, networks and interest groups that form part of the global Deakin University Alumni Community.

Contact the Deakin Central Alumni Office at:

Geelong Waurn Ponds Campus Geelong Victoria 3216 Australia Tel +61 3 5227 1019 or +61 3 5227 1317 deakinalumni@deakin.edu.au

DND

ele ele

12

OLOWBO

About

Sth Ort

ALL Dec

Aboutt. 715 Jan.

Bin Pete

Apl.

Sth MAY.

19th May.

Melbourne Burwood Campus Burwood Victoria 3125 Australia Tel +61 3 9246 8254 deakinalumni@deakin.edu.au

Car

(COO)

AWYA?

DIMBO

Thailt Coom Wysn

space ava

MOOR SE (Cargo of MOOL

