INSIDE

Infamous origins of the RE:Conception festival

Indigenous knowledge meets Western science

MQ Speed takes on Battle Mountain

Empowering children through reading

The connection between happiness and success in business

alumni awards

Celebrating the amazing achievements of our alumni
Message from the Vice-Chancellor

It is with great pleasure that I welcome you to the 2018 edition of Sirius, the magazine that recognises the achievements of our alumni, as well as your ongoing connection and importance to our University.

In this edition, you will find 13 extraordinary alumni honoured as 2018 Alumni Award winners across the full spectrum of the arts, business, education, public and community service, science, health and medicine, and sport. Individually, these graduates have achieved remarkable success in their chosen endeavours. Collectively, they provide great inspiration to the Macquarie community and demonstrate the University’s longstanding commitment to being a place of inspiration that is renowned for excellence.

Our researchers continue to be groundbreaking and impactful as they strive for innovation and discovery, and I am delighted to share some examples in this magazine. For all our latest research developments, I encourage you to visit The Lighthouse (lighthouse.mq.edu.au) – a new online resource at Macquarie.

These achievements are all the more impressive given the large-scale building works, as part of the Campus Development Plan, that are underway to improve facilities. The Campus Hub building demolition is complete, and I am both relieved and somewhat saddened that the walls didn’t talk from 50 years of Macquarie toga parties, band nights and general socialising in the Ubar.

The Faculty of Arts W6A building is undergoing an amazing transformation into enhanced galleries, formal and informal learning spaces, event facilities and offices. In 2019, the new building at 12 Wally’s Walk will be operational to host alumni, students and staff.

I encourage you to keep in touch and remain part of this inspiring community.

Thank you for being a part of our history and our future.

Professor S Bruce Dowton
VICE-CHANCELLOR AND PRESIDENT
We’d love to hear from you!
Send your story ideas, feedback and thoughts to alumni@mq.edu.au or phone us on 1800 673 662.

MACQUARIE MOMENTS
4 From Conception to RE:Conception
An irreverent prank and one of the best student festivals in the world.

RESEARCH
14 In brief
Saving coastal ecosystems, empowering health decisions, improving the feedback loop, and understanding time and historical power plays.

18 A shared wisdom
Where indigenous knowledge and Western science meet.

“A lot of people have been living off country. They’ve lost both cultural knowledge and language.”
Dr Emilie Ens

COVER STORY
Alumni Awards
Find out what makes Macquarie University alumni stand out.

COMMUNITY
25 Fighting cancer on the beaches
How a local group are funding life-changing cancer research.

PROGRAMS
26 Introducing the Macquarie MD
Training medical professionals to adapt and thrive in culturally diverse settings.

GIVING
28 The gift of reading
Improving literacy – one child at a time.

NEWS
20 It’s the same campus, just not as you know it
Creating a vibrant, sustainable world-class university.

22 MQ Speed
Engineering students compete at the 2017 World Human-Powered Speed Challenge.

LAST WORD
30 The heart of business
How intuition can engender start-up success.
The widely acknowledged father of Conception Day was pioneer alumnus Phil Gibbs (Bachelor of Arts, 1977).

“We had a bit of an inferiority complex back in 1969 because of our moonscape campus and the lack of a student muck-up day to rival UNSW's Commemoration Day or Sydney's Foundation Day,” says Gibbs.

According to Gibbs, they looked at different dates to hold a celebratory event, but every official date was at the wrong time – in the holidays, for example.

“We couldn’t use Lachlan Macquarie’s birthday because it fell during exams, but at a drunken party we joked that we could have it nine months earlier and call it Conception Day. Unfortunately, someone got the date wrong and it ended up in September.”

**A SPIRITED BEGINNING**

The first Conception Day was a half-day event involving rain, flour fights and a student band on the roof of the union building that upset the academics. Although they weren’t quite as upset as the hardworking students who wanted to spend the day studying – and had the fire hoses turned on them for their lack of festival spirit.

The following year, organisers decided they needed to lift the bar, and the great gnome hunt was initiated on the eve of Conception Day. (See the 2015 edition of *Sirius* for Dr Brian Spencer’s account of the evening.)

“The gnome hunters exceeded their brief and stole everything not nailed down,” Gibbs reminisces. “In the end, it was a mass heist of garden kitsch. Initially we tried to hide them in the forest, but only their heads stuck out,

“**It was more like Woodstock – 10,000 students were in a range of levels of sobriety, impatiently waiting for the next act, Wolfmother, to hit the stage.”**

**Phil Gibbs**

so we decided they would line the path between the library and the union building. They provided a 1000-strong guard of honour that greeted students for the main event.”

Gibbs says the gnomes were transported to Eastwood and Epping police stations where they were categorised according to type – frogs, storks, statues and hundreds of pouting gnomes. There were so many they had to move the police bikes out, and little old ladies argued vigorously over which concrete frog belonged to them.

“I was made to go to the police station and apologise formally on behalf of the gnome-nappers to the very stern sergeant on duty,” says Gibbs.

Things did not end there though.

**THE CAMEL OF CONCEPTION**

In the interest of creating a memorable festival, the organising committee had decided to hold an old-fashioned colonial garden party to formally mark Conception Day. It was felt that a camel would lend the right tone to the event, so one was hired from a local farm.

“The deal was that we had to look after Egypt the camel for two days, and we planned to keep her at the rugby house behind the university,” Gibbs says.

While the Great Garden Gnome Hunt of 1971 still shines bright in the collective memories of Macquarie's earliest alumni, it was just one of a riotous program of activities that launched the infamous Conception Day – an event that over the years has been recognised as one of the best student festivals in the world.
“Unfortunately, boys being boys, the rugby team decided to give the camel some celebratory drinks and cheese, so in the middle of Conception Night we had to rescue Egypt and take her to a safe house further along Epping Road.

“There’s no easy way to make a drunken camel go where you need it to. In the end, I decided to ride her along Epping Road and past El Rancho, now known as The Ranch, where earlier that day students were offering moonshine brewed in a toilet they called the ‘seat of learning’ to truck drivers who stopped at their roadside stall.”

As Gibbs inconspicuously plodded along on the inside lane, he was spotted by a police car that ordered them to pull over.

“When I eventually managed to stop the camel, who should emerge from the car but the same police sergeant that I’d had to apologise to about the gnome hunt. He was not amused.”

**RE: INVENTED**

The night of mayhem marked the beginning of a much-loved tradition. “In the years that followed, there were religious statue hunts, conducted with all the irreverence you would expect from a bunch of larrikin students, and gala balls with very non-PC prizes awarded to Mis Conception, Mis Hap and Mis Behaviour,” Gibbs says, adding that to celebrate Conception Day’s 40th anniversary in 2009, he was invited to give a talk about the festival’s history.

“I thought I would be speaking to a genteel audience, but it was more like Woodstock – 10,000 students were in a range of levels of sobriety, impatiently waiting for the next act, Wolfmother, to hit the stage.”

Conception Day ran until 2014. It became Australia’s longest-running music festival, with a record of producing great line-ups and attracting huge crowds to the three stages around the lake. Over the years there were mass streakings, while in 2003 more than 1000 festival goers broke the world record for the most tequila shots in a row.

Unfortunately, owing to concerns about increasing drug and alcohol abuse, Conception Day had to be stopped in 2015. It has since been replaced with RE:Conception Day, an event that still features a great musical line-up, just without some of the other excesses.

“I’m just so grateful to the University for keeping my baby alive all these years,” Gibbs says. “Even now, students and alumni approach me and tell me how great it is.”
Macquarie University Alumni Awards recognise and celebrate the achievements of alumni, and provide an opportunity to share their inspirational stories with the University and the wider community. Our alumni are a source of pride and motivation, and they embody the University’s association with excellence.

The award categories ensure alumni from all areas of the community are recognised for their local, national and international achievements.

Congratulations to our alumni award recipients.
ARTS AND CULTURE

Adam Hills

Ah, Adam Hills. We all know and like this cheeky and talented comedian, but many may be surprised to learn that beneath the jokes is a sensitive soul with a humble heart. Genuinely thrilled to receive this award from Macquarie University, Hills says, “This award means more than I can express, especially when I consider the calibre of people who have passed through Macquarie’s hallowed halls. I mean, to be thought of in the same breath as The Wiggles is high praise indeed.”

High it may be, but warranted. Described as ‘effortless’ and ‘brilliant’ by The Guardian (London), and internationally awarded for his work in arts and culture, Hills graduated from Macquarie with a Bachelor of Arts and with some “incredibly strong friendships” that are with him to this day.

“It was an excellent place to grow and learn, and from which to head out into the world. It was a time to find out who I really was, and it gave me the confidence to try comedy.”

Hills still recalls his uni days as an “exceedingly positive experience”, an experience that has not left him. “The last time I drove past Macquarie University, it made me think how far I’d come and how much of what I’d learned there was still with me. I remember working with audio engineering tutor Dave Clark-Duff, who said he worked best when he was passionate about what he was doing. That still rings in my ears, and I always try to follow my passion.”

So, any advice for our current students? “I’d say, soak it all in. Every little drop. Because you never know which bits will be useful in the future,” says Hills.

Sound advice indeed.

Gold Logie nominated host of the hit TV series Spicks and Specks, Adam Hills has a string of international awards to his credit.

When Hills is not hosting his UK talk show, The Last Leg, he can be found globetrotting as a stand-up comedian and advocating for the rights of people with disability.

Hills graduated from Macquarie with a Bachelor of Arts (1991) majoring in Media and Communications.

EDUCATION

Dr Anthony Field AM
Dr Greg Page AM
Dr Murray Cook AM

You know you’re encountering a truth when you receive the same information and sentiment from different sources. This is certainly the case in speaking with Dr Anthony Field, Dr Greg Page and Dr Murray Cook from The Wiggles, who all studied early childhood together at Macquarie.

While much has been made of their extraordinary accomplishments and popularity, Page says “something that usually goes unheralded is the fact that four blokes from Australia got together and created something that didn’t really exist before – and we did it with the knowledge we gained thanks to Macquarie University and the lecturers and tutors who shaped us.”

It may be years since they graduated, but the philosophy imbued in them by lecturers, such as Kath Warren, Alma Fleet, Rosemary Harle and Kathy Griffiths, “really impacted the way that The Wiggles crafted and delivered content for children,” says Page.

“That all worked from a child-centred point of view. We were reflecting their world in our performance,” says Field.

The three each referred to their studies as “the cornerstone” of everything they did. “Understanding the way children think was vital to what we did,” says Cook.

Field continues, “The philosophy behind early childhood education was based on empowering children. As teachers, and later as performers, we always kept that with us.”

Adds Cook, “Just because it was for children didn’t make it any less important. It was the connection with the children that was always so important to us.”

While all three were humbled by the award, Field felt it was “confirmation that we have kept children as our focus and motivation, and kept true to the philosophies we learned at Macquarie.”

Their shared philosophy clearly means everything to these three – the world has truly become their classroom.

As children’s entertainers, The Wiggles have enjoyed unprecedented success. In 2010, they were awarded a Member of the Order of Australia for their ‘service to the arts, particularly children’s entertainment, and to the community as a benefactor and supporter of a range of charities’.


Page graduated from Macquarie with a Diploma of Teaching (1993) and Doctor of Literature (Honoris Causa) (2009).

ENVIRONMENT

The Hon Dr Rob Stokes MP

The reaction from the Honourable Dr Rob Stokes MP on receiving an alumni award isn’t surprising given his history with Macquarie and his passion for the environment and the law. “This award is a humbling encouragement that the hard work to promote the cause for conservation and sustainability is supported by an institution I love,” says Stokes.
It is easy to see how Stokes’ interests and enthusiasm converge when you realise that he studied at both undergraduate and postgraduate levels, as well as worked as an academic, at Macquarie. He recalls the influence of those who mentored him as significant, such as Emeritus Professor Patricia Ryan, Professor Zada Lipman, Associate Professor Donna Craig, the late Professor Michael Jeffery QC, John Whitehouse and Professor Ben Doer.

“As an early proponent of interdisciplinarity in education, Macquarie University powerfully influenced my contribution at the intersection of law, education, environment and planning,” says Stokes.

“It also provided me with a decision-making framework to assess the social, environmental and economic implications of major resource projects within an international framework.”

His studies at Macquarie also opened “incredible doors” and “provided opportunities to translate research and thinking into pragmatic policy”, which was beneficial during his time as NSW Minister for Environment (2014–15) as well as NSW Minister for Planning (2015–17).

“I was fortunate to be able to implement a lot of my thinking that I gained at Macquarie University in my professional life.”

The Hon Dr Rob Stokes MP

“I was fortunate to be able to implement a lot of my thinking that I gained at Macquarie University in my professional life.”

The Honourable Dr Robert (Rob) Stokes MP started his career as a lawyer and an academic in environment and planning law prior to joining the political arena in 2005. He has a lifelong interest in environmental protection and planning, heritage and sustainability, and continues to be actively involved with Macquarie’s Centre for Environmental Law. He is currently the NSW Minister for Education. Stokes graduated from Macquarie with a Bachelor of Arts (1995), Bachelor of Laws (1997), Master of Laws (1999) and Doctor of Philosophy (2008).

INNOVATION AND ENTERPRISE

Matt Barrie

Matt Barrie embodies innovation and enterprise beyond his impressive LinkedIn profile of nearly one million followers, and talking with him reveals an interested mind and a positive, undaunted outlook.
Admitting that he never went to CEO school, Barrie clearly progressed at his own pace. Having a multifaceted approach to life, learning, technology and business, Barrie is familiar with setbacks, but not deterred by them, and he believes that “it is never too late to reinvent yourself and upskill”.

That was exactly what Barrie had in mind when he enrolled at Macquarie. Barrie was keen to improve his knowledge in finance after what he called a “dark time”; his previous enterprises hadn’t “set the world on fire”, and he was in-between jobs and looking to take time out.

Macquarie’s Master of Applied Finance was to become a piece of the intricate puzzle that makes him what he is today. During his studies, Barrie made interesting and influential connections at Macquarie. Indeed, Professor George Foster, a colleague of Director of Applied Finance Phil Dolan, became a board director of Barrie’s company for six years.

Asked what advice he would give to aspiring entrepreneurs, Barrie’s demeanour instantly lifts, his enthusiasm for sharing is palpable.

“You don’t want life to be handed to you on a platter – forge your own destiny. There is a huge amount of opportunity in the world. Go out there and seize it. Take risks and try things. Most of all, take initiative and recognise opportunities when they arise.”

Clearly, being an entrepreneur is more than a job title; it is a way of being in the world.

Matt Barrie is an award-winning entrepreneur, thought leader, speaker and influencer. He is the CEO and chairperson of Freelancer.com and has a myriad of degrees in engineering and business. He is highly regarded in the fields of entrepreneurship, economics, business and technology.


INTERNATIONAL ACHIEVEMENT

Bruce Gosper

“I’m very honoured to receive a Macquarie University alumni award – it doesn’t seem that long since I was at uni, but it’s some 38 years!”

In that time, Bruce Gosper has helped raise a family and been fortunate to find a fulfilling, busy career. He says, “My work and my passion are trade policy and negotiations. It’s taken me to interesting places across six continents and put me in contact with some great people.

“The institutions, rules and norms that keep trade working, and that protect the weakest from the most powerful, have been tremendously important to the relative peace and prosperity of the past 70 years and to Australia’s welfare.

“Being able to play a part in supporting open trade and a rules-based system has given me great satisfaction. There are plenty of challenges to all that now – rising protectionism, the strains on the global system from shifting geopolitics, and the pace of change in technology. There’s plenty more work to do.

“A lot of trade policy is the hard graft of building relationships and trust, and there’s also the high drama and exhaustion of big trade negotiating rounds. What I’m most proud of is the work I’ve been involved in over many years with the World Trade Organization – it’s something worth any lifetime of work.

“My education at Macquarie University was good preparation. The multidisciplinary approach equipped me with different perspectives and ways of looking at issues and problems, which has been invaluable. The rigour of the scientific method supported by an appreciation of history and politics and culture!

“In Singapore, I’ve been pleased to engage with Macquarie alumni. It brings together a great group of people, at different stages of their lives, but with a shared experience. The older, pioneer graduates and the new, younger graduates all have something to offer our gatherings.”

Bruce Gosper is the Australian High Commissioner to Singapore and is also a member of the Asia Society Australia Advisory Council. He was previously CEO of Austrade and Ambassador to the World Trade Organization.

Gosper graduated from Macquarie with a Bachelor of Arts (Honours) (1980).

MEDICINE AND HEALTH

Professor Alan Mackay-Sim

“My life has been dominated by following my own dreams completely,” says Professor Mackay-Sim, who remains mentally connected to his alma mater – Macquarie. “I have followed its success from a pioneering institution in the early 1970s when I attended to the powerhouse it is today.”

At school, Mackay-Sim was interested in how the brain works, so he chose to study at Macquarie because it allowed him to choose his subjects, rather than being limited to a defined set of subjects at other universities.

“I was interested in physiology, biology and psychology – what is known as neuroscience now – but back then, it wasn’t a subject as such. So I deliberately chose Macquarie, which was tiny – just 3000 students.

“It was a great decision because, although I moved away from psychology, it gave me really good training in experimental design and statistics. My first research projects were in behaviour and subsequently cell biology, which I have continued to pursue.”

Although he believes his time at Macquarie was formative and provided a strong foundation for his later work, he is careful to balance this belief. “University is just the beginning of a lifelong education. Life and careers do not follow a straight line.

“We are all called to be leaders. Whether that is within our families or within our professional lives, there are people who are looking to us.”

Dr Andrew Scipione AO APM
So how has Mackay-Sim navigated a nonlinear yet extraordinary path? “Be aware of opportunities, know they are there and don’t be afraid to educate or re-educate yourself.” Most of all, “learn to take risks if you want an interesting life,” he says. And that’s something we can all aspire to.

The 2017 Australian of the Year, Emeritus Professor Alan Mackay-Sim is a biomolecular scientist who has dedicated his life to stem cell research. His groundbreaking work in the treatment of spinal cord injuries has miraculously changed the lives of many, and it has been described as the scientific equivalent of the Moon landing. A major proponent of the importance of funding for the sciences, Mackay-Sim is known for his inquiry, persistence and empathy.

Mackay-Sim graduated from Macquarie with a Bachelor of Arts (1973), Bachelor of Arts (Honours) (1974) and Doctor of Philosophy (1980).

PUBLIC AND COMMUNITY SERVICE

Dr Andrew Scipione AO APM

Servant first, leader second. It may not have been the most popular leadership style, but it was a natural fit for Dr Andrew Scipione – one that he was challenged to define while studying the Master of Management at Macquarie.

Prompted to consider what underpinned his management style, Scipione says, “There are different ways of engaging people – my studies led me to a servant leadership style. I was a Christian before I was a leader, and this style of leadership was consistent with my values.”

Scipione undertook his masters as part of a development program with NSW Police – an organisation he dedicated four decades of his life to – and the congruence between his values and purpose, which is evident in both his personal and professional life, shines through his conversation.

“We are all called to be leaders”, says Scipione. “Whether that is within our families or within our professional lives, there are people who are looking to us.

It is important to be part of an ongoing commitment to excel, and this style gave me the direction to do better. And it allowed me to invest in those working alongside me so that they could achieve their best too.”

Scipione found his masters to be invaluable in his work as time went on, yet he acknowledges the huge commitment it entailed. “I couldn’t have done it without my wife and children, and I will be forever grateful to them.”

Scipione also recognises former NSW Fire and Rescue Commissioner Greg Mullins (Master of Management, 2000), with whom he has a lot in common. While he describes the award as an honour, he is quick to recognise others who, like him, have worked exceptionally hard and says this award is shared with them. Always a humble servant.

Dr Andrew Scipione retired in 2017 after a lifetime of police service and nearly 10 years as NSW Commissioner of Police. His time as Commissioner was one of unprecedented change across police operations. His contribution was far-reaching, and his leadership style was highly respected.
Scipione graduated from Macquarie with a Master of Management (1998) and Doctor of Literature (Honoris Causa) (2013).

**RISING STARS**

**Jennifer Star and Shaun Star**

Distinguished alumni Jennifer (Jen) and Shaun Star, who met at Macquarie, are a force for good in the world. They are often reverently referred to as a ‘powerhouse couple’ but ‘rising stars’ reflects their alumni award, their surname and their aspirations to help others.

Jen lives in Delhi, India, and runs Tara.Ed, a not-for-profit organisation that promotes quality education in rural and remote areas of India, Bangladesh and Afghanistan through teacher training and capacity building, infrastructure development and resource distribution.

Jen says, “Seeing the Tara.Ed model – which was once just a 21-year-old’s dream – become a success and make a sustainable impact on the lives of vulnerable kids in India is really special. To date, we have changed the lives of over 17,500 students.”

Jen has dedicated her life and career to women and girls who have not had the same freedoms and privileges she has enjoyed, and she has received many awards for her work in this space. Yet, she says a Macquarie alumni award means a great deal to her: “The continued support and recognition from Macquarie University for all my pursuits is greatly appreciated.”

Shaun agrees that “being part of the Macquarie community has been an extremely rewarding experience and provided great value to both our lives.”

He, too, has found his calling. His focus has been on building connections and strengthening people-to-people links between India and Australia through the Australia India Youth Dialogue, which he co-founded; and between Indian and Australian lawyers through the publication of a comparative legal volume. He is the director and founder of the Centre for India Australia Studies.

Over the past year, he has hosted immersion programs for Australian students and has found it gratifying to witness firsthand the impact international exposure has had on their lives.

Their belief in the power of compassion and altruism is inspirational. We wish Jen and Shaun continued success with their important global work that impacts the lives of others so positively.

Jennifer Star is the founding director of Tara.Ed and is currently the Manager, Professional Learning (India), Australian Council for Educational Research.

Shaun Star is an Assistant Professor and Assistant Dean at the Jindal Global Law School.
Jennifer Star has represented Macquarie University and Australia in Judo. Star graduated from Macquarie with a Bachelor of Arts (2009) and Bachelor of Arts (Honours) (2010).

Shaun Star graduated from Macquarie with a Bachelor of Commerce with Bachelor of Laws (2011).

**SCIENCE AND TECHNOLOGY**

Dr Abigail Allwood

Is there life on Mars? It’s a question many ponder, but few are qualified or engaged to answer this timeless question. That is, unless you are Dr Abigail Allwood, first female and one of seven principal science investigators to lead NASA’s next mission to Mars, scheduled for 2020. She will also be the first Australian to lead a NASA team searching for signs of life on Mars, and she hopes that this exceptional achievement will light a path for other women.

To be part of NASA’s next mission to Mars, Allwood and her team pitched the inclusion of the Planetary Instrument for X-ray Lithochemistry, or PIXL for short, a NASA-funded instrument that scans rocks for chemical signatures of life. To Allwood and her team’s delight, she was accepted.

PIXL will be operated remotely from Earth and will be able to analyse specimens in greater detail than ever before. But Allwood is no stranger to Martian life. As an early-career academic, she explored Australia’s Pilbara for signs of life from Mars. It took three years, but she and her husband identified seven different-shaped fossil stromatolites that date back 3.4 billion years.

Given the number and range of specimens, even those most sceptical were in no doubt of the validity of her discovery, and it is still the oldest – and most widely accepted – record of life on Earth. But this was not the end of the story. Allwood won a coveted position at the California Institute of Technology, where working under geologist John Grotzinger (lead scientist for the 2014 Mars Curiosity rover) would become a key link in her own Mars expedition.

Allwood began developing PIXL by reducing the size of a similar instrument used in the Pilbara and waited for her dream to be confirmed – PIXL would be going to Mars.

One small step for PIXL. One giant leap for womankind.

Dr Abigail Allwood, astrobiologist and co-leader of NASA’s Mars 2020 rover mission, has a strong interest in the early Earth, microbial sediments, evaporites and the oldest record of life on Earth, and has been outspoken on the need to invest in – not cut – funding for the sciences in Australia.

Allwood graduated from Macquarie with a PhD in Earth Science (2007).

**SPORT**

Liz Ellis AO

Liz Ellis’ reputation as one of Australia’s greatest netball players often precedes her academic achievements and other interests. You may not know that she has a double major in Ancient History and Politics – and is a history buff.

“I still love it”, Ellis says. A happy pastime and relic from her time as a student is devouring history books and downloading podcasts. In light of the load of her law studies, she says “history kept me sane”.

Although it has been 20 years since she left university, she says she is still grateful to the passionate lecturers and tutors who shaped her brain. “What I was taught didn’t give me answers; it showed me multiple ways of coming to an answer.

“When I analyse an issue, I try to bring another perspective. Things aren’t always black and white; there’s a whole lot of grey.”

It would seem that all the threads of her life so far are now coming together. Happily ensconced in northern New South Wales, Ellis says of the award, “I am humbled. It’s a real honour for your old university to still want to claim you and continue the relationship.”

Former Australian netball captain and champion, broadcaster and media commentator, Liz Ellis was awarded the Officer of the Order of Australia for her ‘distinguished service to netball as an elite player and coach, through support and advocacy for young women, as a contributor to the broadcast and print media industries, and to the community’ in 2018.

Ellis graduated from Macquarie with a Bachelor of Arts with Bachelor of Laws (1997).
Macquarie University is extremely proud of every one of its 184,000 graduates – their achievements and their contributions in our local and global communities.

The Macquarie University Alumni Awards recognise and celebrate the achievements of alumni. The awards provide a platform for sharing their inspirational stories with other alumni, staff, students and the wider community.

We are now accepting nominations in the following award categories:

- Arts and Culture
- Education
- Environment
- Innovation and Enterprise
- International Achievement
- Medicine and Health
- Public and Community Service
- Rising Star (aged 30 years or under)
- Science and Technology
- Sport

Nominations close 31 October 2018. Nomination forms and details are available at mq.edu.au/alumni/awards
Solutions for the future

Associate Professor Melanie Bishop

With more than 85 per cent of Australians living in the coastal zone, ensuring that innovative solutions are developed to protect and enhance the coastal ecosystems on which we depend is vital. While coral reefs and polar ecosystems often grab the media attention, it is the temperate coastal ecosystems that are of greater ecological importance in terms of the services they provide – and the focus of Associate Professor Melanie Bishop’s work.

“Temperate coastal ecosystems are one of the most important ecosystems in terms of carbon sequestration and marine productivity, but they are also areas that have borne the brunt of human impact,” says Bishop.

Bishop is investigating how the coastal zone might be sustainably developed to protect estuarine and near-shore biodiversity and its important socioeconomic values. “My vision is to underpin environmental management of our coasts with cutting-edge science. I tackle questions that policymakers need addressed while simultaneously making important contributions to ecological thinking.”

One way she is doing this is as leader of the Green Engineering Work Group for the World Harbour Project. The group is developing solutions that will maintain and facilitate biodiversity in heavily urbanised environments, which includes retrofitting built infrastructures in estuarine and coastal environments with complex habitats, and transplanting native, habitat-forming species onto them.

“With support from the NSW Environmental Trust and philanthropists, we are now scaling up the use of habitat-enhancing tiles on entire seawalls to increase native biodiversity.”

Restoring Australia’s oyster reefs lost to overharvesting for food and lime is another focus of Bishop’s research. These reefs have declined by more than 95 per cent since European settlement. With a single oyster able to filter three litres of water an hour, the loss of functions they provide to maintain a healthy ecosystem, such as maintaining clean water, providing food and habitat for fish, and protecting and stabilising shorelines against erosion, has been significant.

“We are working with the oyster industry to assess how existing breeding programs, developed for aquaculture, may be adapted to support restoration programs. We are also using state-of-the-art techniques to map the habitat formed by remnant oyster reefs and GoPros to investigate how fish use them.”

It’s a dream come true for Bishop: “I always wanted to do research that was useful. I want to make sure that everything I’ve enjoyed is there for my daughter and future generations.”

worldharbourproject.org/workgroups/green-engineering/

Associate Professor Melanie Bishop from Macquarie’s Benthic Ecology Lab won the Jim Piper Award for Excellence in Research Leadership. Bishop investigates natural and human-mediated processes that control coastal biodiversity and its important ecosystem functions.

Your personal guide

Professor Kerry Sherman

When up to a third of women post-mastectomy regret their decision to have or not to have breast reconstruction surgery, and many more feel they did not have adequate information to make the correct decision, something needs to be done. That something is BRECONDA (Breast RECONstruction Decision Aid).

BRECONDA is an online intervention tool designed to help women with breast cancer – or with a genetic susceptibility to developing the disease – to make an informed decision.
about breast reconstruction and the most appropriate type of reconstruction.

The online intervention tool was developed by Professor Kerry Sherman (Doctor of Philosophy, 1999) from the Department of Psychology and her international team of breast surgeons, oncologists and researchers, and with input from female participants. “BRECONDA was developed in recognition of the immense challenges that women face in making these breast surgery decisions,” says Sherman.

Being diagnosed with breast cancer is one of the most stressful events in a woman’s life.

“Women are likely to be in shock, and it is a difficult time to be making important decisions within a very short timeframe. You can think of BRECONDA as almost holding the woman’s hand, guiding her through the relevant information she needs to make a decision, including the advantages and disadvantages of all the available options, and helping her to decide what is important for her personally.”

That is why the information provided by BRECONDA is easy to understand and use. The free decision-making tool, available online through Breast Cancer Network Australia, empowers women to consider their options for breast reconstruction.

“This is the first such decision aid for women considering breast reconstruction.”

Professor Kerry Sherman

unique in its design, as we acknowledge how stressful it is to make such decisions.

“We provide video guidance on managing stress and also feature video interviews with other women who have gone through this decision-making process, and photo galleries that provide examples of different types of surgery,” says Sherman.

Best of all, women all over the country – including in metropolitan and regional areas, even overseas – are able to access this trusted service from the comfort and safety of their own home at a time that is convenient to them, and research supports the efficacy of the tool.

Ultimately, breast reconstruction is a very personal decision that needs to be made in discussion with healthcare providers after reviewing all available options. BRECONDA is helping women everywhere do just that.

breconda.bcn.org.au

Professor Kerry Sherman won an Excellence in Research award for her work on BRECONDA. Her key areas of expertise include breast cancer survivorship, including lymphoedema risk management, distress, sexuality and body image following a cancer diagnosis.

On cue

Professor Mark Wiggins

What does learning to ride a bike have to do with aircraft near misses or saving international students from drowning? Quite a lot for industries and businesses where sound judgement is critical for ensuring safe outcomes, according to Professor Mark Wiggins from the Department of Psychology.

“When we make judgements about situations, even complex ones, we rely on cues,” says Wiggins. “These cues are activated automatically and without much conscious thought, so they are very difficult to articulate. That’s why you can’t be taught how to do things like balance on a bike.”

Importantly for Wiggins, the use of cues signals the progression to expertise. “We thought if we could capture the use of cues, and then use it as a comparative measure, we could give people feedback. This is critically important when people are using cues to make judgements or diagnoses.

Moreover, the capacity for skilled and efficient diagnosis is vital in many occupations, including medicine, air traffic control, software engineering, power system control, and even among sports coaches,” says Wiggins, who developed an online software tool that assesses different diagnostic skills and gives comparative feedback – the EXPERT Intensive Skills Evaluation (EXPERTise) tool.

“EXPERTise can be adapted to any context that relies on the use of diagnostic skills; however, our funded research is primarily in the area of electricity control, since it is an environment that has significant implications for the safety and security of the Australian public, and one that depends very heavily on the diagnostic skills of network controllers.”

Wiggins continues, “Our team has taken one concept and applied it to a whole range of environments. From recent research that revealed differences in performance that might explain why international students are over-represented in drownings, to a study that revealed the plan-continuation
errors evident among some pilots, participants can own their own performance due to individualised feedback.”

Even better, organisations can now use this feedback to establish new training strategies, benchmark themselves against their industry, and even raise the standard for their industry as a whole. “It also potentially reduces the costs of training for organisations since it obviates the requirement to develop those skills that have already been mastered.”

It’s just like riding a bike – something you never forget.

Professor Mark Wiggins recently received an Excellence in Research award for his work in cue-based processing involved in interpreting and forming judgements in complex, time-constrained situations. A registered psychologist with an endorsed area of practice in organisational psychology, he is Deputy Director of the Centre for Elite Performance, Expertise and Training (CEPET); and Director of the Macquarie University Simulation Hub.

It’s about time
Dr Kira Westaway

Timing is everything, and nowhere is this more so than in the groundbreaking work of Dr Kira Westaway, Director of ‘Traps’ MQ Luminescence Dating Facility. “Dating has become a game changer. It goes from being a rock to something significant in our understanding of human history,” says Westaway.

“There are no records for prehistory, but with the light-sensitive dating method optically-stimulated luminescence (OSL), we can fill in exact moments in time. It’s almost like you are reliving time.”

Filling in the detail and creating a linear story around important events like the extinction of the largest ever primate Gigantopithecus blacki in southern China, or redating Liang Bua cave on the island of Flores, Indonesia, to establish a correct age for Homo floresiensis (the ‘hobbit’), is more than a date in time for Westaway. “Story is so important”, she says.

By knowing exactly when events happened, she is able to start to answer the larger questions concerning evolution and the dispersal of humans, as well as fauna, in the landscape. Westaway is interested in understanding how primates fit into the evolutionary puzzle or how they died out and, arguably more interesting, what is so special about us that we didn’t become extinct.

“That’s why I love it; it’s such a challenge. We’re only just scratching the surface of our understanding.”

Even so, Westaway’s work is yielding information and providing context that is making significant advances in our understanding of when humans first arrived in South-East Asia, as well as in Australia, and when significant tools and art were made.

Exciting developments, especially when you are able to take grains of sand from fossilised mud wasp nests on Aboriginal rock art and test the grains using OSL to

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Research

IN BRIEF

Kira Westaway at the entrance to Gannian cave in the Rubing Basin, southern China. (Photo: Yingqi Zhang)
establish the antiquity of the art, or to place the original occupation of Australia earlier than previously accepted.

This cutting-edge technology is so effective because it tests inorganic material, which means it can be used on any sediment environment anywhere in the world. Samples from the deep, dark depths of time are literally seeing the light for the first time in a very long time – that is, in the lab.

Westaway says, “Being able to date within a range of 100 years up to 800,000 years ago from minerals such as quartz and feldspar is amazing – it allows you to go back in time much further than radiocarbon dating.”

It’s all part of our shared story that Westaway is bringing to light.

Dr Kira Westaway received an award in the recent Vice-Chancellor’s Learning and Teaching Awards and the Research Excellence Awards. A geochronologist and quaternary scientist, she establishes chronologies and reconstructs palaeoenvironments for archaeological sites in Asia and Australasia.

**Power and the past**

**Dr Karin Sowada**

“Events from the distant past can still offer an insight into the modern world,” enthuses Dr Karin Sowada, an expert in the interaction between Egypt and the eastern Mediterranean during the Early Bronze Age (3100–2000 BC). Citing the economic development of five land and sea routes out of China, the Belt and Road Initiative (BRI), the Department of Ancient History’s Sowada says, “China is pursuing its own interests through trade, political influence, and infrastructure investment.”

The huge impact on neighbours and trade relationships of a project like this is something that has often played out over time, but until now, the precise impact of power plays, trade and social instability on societies like ancient Egypt and their neighbours has been difficult to know. But that’s all about to change.

Sowada, recently recognised with an Australian Research Council Future Fellowship, is leading the project ‘Pyramids, power and the dynamics of states in crisis’, which she says will allow her team to track the progress of a state as influential as modern-day China – in the ancient world.

Inspired by the work of the late Professor Basil Hennessy AO, who was a leading scholar in the archaeology of the Levant (eastern Mediterranean) and whose work set the found evidence within a broader international context, Sowada will be exploring how Egypt, during the third millennium BC, was a major player and driver of economic, political and social change in the wider region.

“We know, for example, that the kings of Egypt had a voracious appetite for imported luxury goods and that economic exchange mechanisms are a catalyst for cultural and social change. But what we don’t know is how the internal politics play out, or how leadership responds to threats and challenges, or how this drives decision-making and economic policy settings.”

One of these challenges, says Sowada, was climate variation. “The Nile River was the lifeblood of the Egyptian economy, and low floods had a huge impact both economically and politically.

“Knowing how Egypt dealt with such stress during this period will help inform the role of politics, climate change, trade and the movement of people across a wide geographic area over a long chronological range.

“It will also help us understand the broader environment in which the Egyptian state operated and what impact its engagement had on the rest of the Levant.”

It would seem the wisdom of the pyramids has yet more secrets to unleash.

With a doctorate in Egyptian archaeology, Dr Karin Sowada has worked in politics, public policy and archaeology while holding leadership positions in charitable organisations. In the early 1990s, she broke new ground as the youngest-ever female senator in New South Wales, before spending almost a decade as the assistant curator of the Nicholson Museum.
A shared wisdom

There is a space where Indigenous knowledge and Western science meet. That is where you’ll find Dr Emilie Ens, Senior Lecturer in Environmental Science at Macquarie, and 2017 Eureka Prize winner, who is working with Aboriginal communities in Arnhem Land to study country, exchange knowledge and increase connection for generations to come.

The Ngukurr Wi Stad Bla Kantri (meaning ‘we study the country’ in Kriol) research team is a unique collaboration between Ens, Ngandi Elder Cherry Wulumirr Daniels, the Yugul Mangi rangers, Ngukurr School and community members from the remote Aboriginal community of Ngukurr.

The team is discovering new species; finding new populations of threatened species; preserving culturally significant wetlands; bringing people back to country; and maintaining traditional, endangered languages. Ens works closely with elders, rangers and young people to “meaningfully combine local Aboriginal and Western science while raising awareness of environmental threats in the remote south-eastern Arnhem Land region.”

“This initiative is increasing Western understanding of regional biodiversity and helping find common ground with local people about significant plants and ecological
communities. From there we develop projects and monitoring tools."

TRANSFER OF KNOWLEDGE

Children from Ngukurr School are involved in the project through classes, holidays camps, field research and sample collection. They document information via technology and use traps to find small mammals, reptiles and frogs out in the field.

But not only school children are involved. The Ngukurr community is also helping save a newly discovered population of Leichhardt’s grasshopper. Found during a biodiversity survey that has since become part of a field guide to the local flora and fauna, this bright orange and blue grasshopper is culturally significant to the Ngandi people, but it had not been seen in many, many years.

The near-threatened species eats a single species of mint (Pityrodia) that is at risk from current fire regimes, but Ens says that “rangers are now looking more closely at how they burn the remote area where these grasshoppers live.”

It is exactly this type of hands-on scientific research that helps those involved connect to country, which increases investment in the management and protection of the environment, and helps transfer knowledge between generations – much of which has been lost.

RECLAIMING COUNTRY

“A lot of people have been living off country. They’ve lost both cultural knowledge and language; they don’t know how to use available bush tucker or medicinal plants,” says Ens.

She gives the example of cheeky yams (Dioscorea bulbifera), which need to be cooked, and then leached of any residual toxins by placing them in running water for five days before being eaten. Not only has much of this knowledge been lost, but this culturally significant plant is under threat from wild pigs.

Yet Ens is hopeful. “If people can start to think about how a significant plant is being impacted, they can also start to think about the wider threats to country posed by the pigs, and they may then welcome feral animal control measures.”

It is all interconnected – and one more way the Ngukurr Wi Stadi Bla Kantri project is having a positive, tangible effect on both people and country.
It’s the same campus, just not as you know it

The rollout of our Campus Development Plan is underway – and is helping us to create a vibrant, collaborative campus.

To prepare for the next 50 years of growth, we are investing heavily in our campus with two major projects – the Central Courtyard Precinct and the Arts Precinct.

Within the Central Courtyard Precinct, the University is building state-of-the-art facilities for staff and students. Designed by leading design studio Architectus, the new buildings will serve a variety of functions, delivering social and educational infrastructure to the very heart of the campus.

Existing structures will be redeveloped to be lighter and brighter than their predecessors, creating vibrant and dynamic spaces for all to enjoy. Significantly, new accommodation for students will be created right at the heart of the campus.

Macquarie is also investing in a new Arts Precinct. This transformational project will consolidate 10 of 12 departments, highlighting the unique nature and focus of each. In addition, the project will deliver a new building with offices, showcase areas and a museum.

PART OF THE PLAN
Both projects are part of Macquarie’s Campus Development Plan, which is helping future-proof the University by building a dynamic, sustainable world-class campus.

“The University’s Campus Development Plan is connecting people and enhancing their collaboration, as well as learning and research outcomes, so that Macquarie continues to play a leading role as a place-
maker, education provider, research institute and employer, both now and into the future,” says Professor S Bruce Dowton, Vice-Chancellor.

The overarching plan includes several other projects focused on improving convenience, connectivity and accessibility, green spaces and sustainability. Some are already complete, such as the Macquarie University Incubator, which opened in 2017 and promptly received four awards at the Australian Timber Design Awards. Created for students, researchers, staff, small- to medium-sized enterprises (SMEs), entrepreneurs and start-ups who are working on research or ideas that can be commercialised, a number of concepts have already been nurtured at the Incubator through to the commercialisation stage.

The Macquarie Active Zone Experience (MAZE) also opened for business and is now the new hub for student clubs and societies, with the purpose-built space above the Macquarie University Spatial Experience (MUSE) featuring a number of large areas, as well as a variety of smaller meeting rooms and event spaces.

Removal of buildings C9A and C10A (the former Campus Hub) also began at the end of 2017 to make way for an innovative new learning and teaching building, food and beverage outlets, and the first two of five student housing buildings. In place of the Campus Hub is the Campus Common, an exciting new social precinct in the centre of campus, where it will become the epicentre of student life over the next few years.

Law School of the future

Plans to redevelop the Macquarie Law School that will re-imagine the University’s campus by establishing a new purpose-designed Law School building at its centre were announced in November. Construction on the new building is anticipated to begin in early 2020, with completion in 2022.

“This venue will provide unparalleled facilities for contemporary modes of learning and teaching,” explains Professor Dowton.

“The Law School has a rich history of contribution to Macquarie University, the lives of its students and alumni, and the legal profession. This new facility will provide a home for the Law School to ensure its trajectory as an Australian leader.”

The new Law School building will be known as the Michael Kirby Building in recognition of the contributions the Honourable Michael Kirby AC CMG has made to the University, and his commitment to advancing social justice both in Australia and around the world. He served as Macquarie University Chancellor from 1984 to 1993 before going on to serve as a Justice of the High Court of Australia from 1996 to 2009.

Both the Macquarie Law School and Michael Kirby are committed to social justice as a key component of legal education, and the new Law School building will house the Macquarie Social Justice Clinic, a new initiative that allows law students to partner with public interest legal practices to service pro-bono cases, helping the most vulnerable in society.
MQ SPEED
Macquarie became the first Australian university to send a team to Battle Mountain, Nevada, to compete in the 2017 World Human-Powered Speed Challenge. It’s just one way the School of Engineering is powering up and connecting its students with globally significant issues.

The MQ Speed team, comprising Macquarie engineering students, used state-of-the-art computational modelling, materials testing and physical testing on campus during a four-year development project to come up with what looks like, to the uninitiated, a bicycle crossed with a bullet.

And it’s not far off. Enclosed in an aerodynamic capsule, the human-powered vehicle has around 1/50th the drag of a conventional bicycle and, combined with high-gear ratios, can travel at speeds of up to 144 kilometres per hour.

The external structure is made of tough, lightweight carbon fibre that has no windscreen. Instead, the rider is able to see via mounted cameras and screens within the shell – riding the vehicle is not for the faint-hearted.

**GREASED LIGHTNING**

Macquarie alumnus and current Master of Research student Sajjad Saleh (Bachelor of Engineering (Honours), 2017), has been part of the six-person team who designed, constructed and tested the vehicle – known as MQ1 – for more than three years as part of their PACE (Professional and Community Engagement) unit.

“Our team covered the most kilometres and had the most successful launches – the vehicles need to be pushed for the first 15 metres until they have enough momentum to stay upright,” explains Sajjad, who was responsible for MQ1’s aerodynamic design.

“The rider, Charles Easton-Berry, reached speeds of up to 90 kilometres per hour and only had one crash, which he enjoyed. Safety is really important, so it was comforting to know that he could crash and emerge unscathed.”

The University of Toronto won the event with a speed of almost 129 kilometres per hour, but Sajjad says the record was not broken due to the cold, windy conditions.
“Everyone was very happy with the outcome. We only decided that the bike was ready a month before the competition, and then we had to raise the funds to get there. Fortunately, we were sponsored by Hyundai and Allnex, and supported by PACE and the engineering department. Currently we're working on version two, so we can return with an even faster, more streamlined bike.”

ENGINEERING GROWTH
The success of the MQ Speed team is testament to Macquarie's renewed focus on engineering, which is also exemplified in the launch of its School of Engineering in October 2017.

The new school, which is part of the Faculty of Science and Engineering, is aiming for rapid growth in staff, students and research output in coming years. In conjunction with an increasing level of engagement with corporate and government organisations, this will help Macquarie alleviate the current shortfall of graduating engineers in Australia.

Students will increasingly be involved in project-based learning, an approach designed to attract high-calibre students who want an experience, rather than just a grade. This innovative approach will also help produce graduates who provide immediate value to employers, thanks to their hands-on experience solving problems and working in teams to complete projects. They will also be exposed to experts from a range of backgrounds and industries, helping drive an entrepreneurial culture among our students and support the innovation economy.

It is full throttle from here.
In 2017, Fight on the Beaches chose Macquarie as one of two research beneficiaries of funding to find a cure for one of the world’s greatest killers. Macquarie’s Professor Gilles Guillemin from the Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, is the lead researcher benefiting from the extraordinary support of Fight on the Beaches. Professor Guillemin, an acknowledged world leader in the study of causative links of cancer, will use the charity’s support to validate a new therapy treatment to stop the spread of breast cancer.

“Despite vast improvements in primary breast cancer treatment, options for breast cancer patients whose cancer has spread to other parts of the body, known as metastasis, remain limited and largely ineffective. Hence, metastasis remains the underlying cause of death in the majority of breast cancer patients,” says Professor Guillemin.

Professor Guillemin’s research proposal will explore a different treatment approach for metastatic breast cancer, based on modulating a key biochemical pathway known as the kynurenine pathway (KP). Although this pathway produces essential energy for the body’s daily functions, tumour cells can hijack the KP to escape immune detection and metastasise.

Blocking the activity of the first KP enzyme (IDO1) in animal cancer models has already shown to improve anti-tumour immune detection and reduce tumour growth, but most breast cancer patients do not show enhanced IDO1 activity. Instead, preliminary clinical data showed that it is the second KP enzyme (KMO) that is activated in the majority of tumour samples from breast cancer patients. This data suggests that the KMO may play a more important role than IDO1 in breast cancer.

“Collectively, our research proposal is a unique study with the potential to develop a new therapy that will slow down breast cancer growth and metastasis.”

Guillemin adds, “My research team and I are very grateful to have Fight on the Beaches as a lead supporter of our cancer research here at Macquarie.

“Macquarie is doing some groundbreaking cancer research, and this can be very expensive, but through community support from Fight on the Beaches, we will find the next breakthrough and save lives.”

Christmas in July Charity Ball

Fight on the Beaches will host its annual Christmas in July Charity Ball at Miramare Gardens in Terrey Hills on Friday 27 July 2018.

Join more than 700 guests and 100 volunteers to find a cure for cancer. Honour those who have been lost to cancer, those who are currently fighting, and those who have fought and won.

Tickets are on sale now and include a fabulous three-course meal with refreshments throughout the evening.

Guests will enjoy hearing moving personal cancer stories, live music, prizes, auctions and raffles, and there will be more than 400 gifts under a massive Christmas tree to ensure a great night is had by all.
Introducing the Macquarie MD

In an increasingly borderless world, the demand for medical professionals who are skilled not only in the practical aspects of treating patients, but who are also able to adapt and thrive professionally in culturally diverse settings has never been greater.
Macquarie University’s Doctor of Medicine, known as the Macquarie MD, was launched in 2017, with the first cohort of students beginning their journey to becoming a doctor in 2018.

“The innovative, four-year graduate entry program integrates applied medical sciences with clinical sciences, professionalism, research and cultural responsiveness,” explains Professor Patrick McNeil, Executive Dean, Faculty of Medicine and Health Sciences.

“Outstanding patient-centred clinical care and active health and medical research enriches student learning, which is further enhanced by Australian and international experiences, including at India’s Apollo Hospital.

“This means that Macquarie MD graduates are thoroughly prepared to make a real difference to the lives of patients, their communities and the future of healthcare.”

Macquarie MD students are taught at MQ Health, the first university-led, integrated health campus in Australia. Bringing together the academic excellence and world-leading research of Macquarie’s Faculty of Medicine and Health Sciences with the clinical care provided by the Macquarie University Hospital, Primary Care and Multi-Specialty Clinics, MQ Health gives students the opportunity to learn in a research-active clinical environment. It also offers them the rare opportunity to follow a patient’s progress from initial consultation through to treatment and discharge.

“For Macquarie MD students, clinical learning starts from day one,” explains Professor McNeil. “Throughout the course, inter-professional, comparative and digital learning ensures that students graduate with the technical knowledge and professional skills they need to work across the spectrum of rapidly evolving medical settings.”

GLOBAL FOCUS
Our evolving society needs doctors who can meet the needs of diverse communities, including multicultural communities in Australia.

The Macquarie MD includes Australian and extended international clinical experiences for all students, which recognises the need for future doctors to be globally engaged clinicians, as well as the significant benefits of these experiences – for students, for health systems and for the health outcomes of local and global communities.

Jordan Griffiths, Macquarie MD student and graduate of Macquarie’s Bachelor of Clinical Science, says that because the Macquarie MD is such an innovative degree with a unique approach to teaching, great attention is paid to the qualities and skills a modern doctor requires, such as cultural awareness and social sensitivity, rather than being restricted by traditional teaching approaches.

“I came to realise, during my undergraduate studies, the importance of a doctor having cultural sensitivity in an increasingly globalised society, which meant the Macquarie MD’s global focus was a big attraction,” she says.

“I found my passion for pursuing a career in medicine while travelling, when I came across areas in which trained medical professionals can make such a difference to entire communities.

“The Macquarie MD will equip me with the knowledge and skills to appropriately help these communities in the future.”

Jordan says that the cohort’s small size offers another advantage to budding doctors. “Because of the personal attention that each student receives, it will be easier to forge connections with clinicians and professionals from the Macquarie University Hospital and clinics.

“I am hoping to create networks that will help me progress in the future – and make a real difference to the patients and communities I will work with.”

Scholarship program
To ensure that students from diverse backgrounds can undertake the course, Macquarie University offers up to 10 scholarships on a competitive basis each year. Two scholarships are available to Indigenous students, and five to graduates of Macquarie’s Bachelor of Clinical Science. Two are equity merit scholarships, and one scholarship is awarded to the highest-ranked applicant to accept an offer of a place in the Macquarie MD.
Giving

For more information about the clinic, visit mq.edu.au/about/campus-services-and-facilities/hospital-and-clinics/reading-clinic
Most of us take the ability to read for granted, but it’s something too many school children have difficulty with – and something their parents cannot always afford to change. It’s heartbreaking to see children struggling with something so fundamental to achieving in all areas of life.

At the Macquarie University Reading Clinic, experts know what these children need and what works – evidence-based assessment and treatment, and support for parents and carers in partnership with schools.

“The Reading Clinic provides assessments and treatment for children, adolescents and adults with reading and spelling difficulties to help improve educational, emotional and vocational outcomes,” says Dr Saskia Kohnen, Deputy Director, Macquarie University Reading Clinic.

“About 15 per cent of the child population have severe difficulties in literacy. Unfortunately, compared to their peers, children with dyslexia are four times more likely to drop out of school, show lower academic achievements and have poorer long-term vocational outcomes,” adds Kohnen.

Experts at the clinic assess each child individually and, with the child’s family and teachers, develop a tailored program that delivers life-changing improvements for children like William.

Two years ago, William came to the clinic unable to read. “He went from not reading at all – not willing to even try – to giving it a go and actually reading,” says his mother, Carolyn.

While it’s been a long road, Carolyn adds, “It has definitely been worth it. In fact, it’s been the only thing that has ever worked to get him to read. He doesn’t feel as excluded at school and can join in more in class. It’s given him hope that he can achieve something.”

In William’s own words, he went from “lonely and mishroboll” to “happy and confident” with help from the clinic.

The Macquarie University Reading Clinic is not restricted to face-to-face assessments. Children with poor literacy who live far away from literacy specialists and are unable to access high-quality interventions are not only disadvantaged but also more likely to remain poor readers.

The clinic’s team of experts recognise these difficulties and deliver internet-based interventions via programs such as Skype. The clinic is in the early stages of delivering these assessments and services, and is conducting detailed research to optimise the effectiveness of live-stream versus standard face-to-face intervention for children with poor literacy skills.

Reading seems so simple and is a gateway to so much. Yet, it is out of reach for some children. The clinic and its committed team want to change that – even for just one child.

The Reading Clinic Scholarship Fund supports children whose parents or carers cannot afford treatment. To make a donation, visit mq.edu.au/connect/reading-clinic

The gift of reading

It may be some time since you were in primary school, but some things don’t change – things like drinking from bubblers on a hot day, running around the playground with your friends, attending assemblies and ... reading books.
Australia’s infatuation with start-up culture is at an all-time high. Last year 20,000 new small businesses were created in New South Wales alone. And according to the latest annual Startup Muster survey, of the 1500 ‘approximately’ new business founders interviewed, 70 per cent were based in co-working spaces.

And this, according to Mara, is where the problem lies. The stereotypical image of all-night marathons in front of a computer in trendy co-working spaces, where empty pizza boxes pile up on the ping-pong table, is one that persists. In fact, “workaholism is branded as a desirable lifestyle choice for many would-be entrepreneurs,” says Mara.

But Mara’s own research debunks that myth. “Working long hours under constant stress lowers productivity and can kill your intuition,” she cautions.

With intuition playing a major role in the success of a range of serial entrepreneurs, it seems making intuition a priority is something those who have started numerous profitable businesses all have in common.

**FOLLOWING YOUR HEART**
Mara followed her postgraduate work at the Macquarie Graduate School of Management with research based on the discoveries of the HeartMath Institute where, for more than 25 years, Professor Murray Gillin AM and others have researched the impact of stress on entrepreneurial businesses.

“The HeartMath Institute has developed a range of tools to identify the amount of stress a person is experiencing and has linked high stress levels to a measurement called coherent heart rate variability,” Mara explains.

Mara’s book *Think like an entrepreneur* explores the methods used by a range of entrepreneurs to ensure optimum performance and includes interviews with a number of business leaders like Michael Rennie, Managing Partner of McKinsey and Company – a global management consulting firm.

Rennie describes how he has used meditative techniques involving quiet reflection to help him solve thorny problems. For Rennie, understanding how feelings inform thoughts has been a game changer. “As an entrepreneur, intuition is key. You can’t always use logic to make your way through uncertainty.”

**CULTURAL CHANGE**
Mara says that the entrepreneurial culture of a start-up inevitably changes as the business grows, but she is quick to point out that “culture is not created by the co-working spaces, the ping-pong tables or the breakout areas.”

Instead, leaders must look inside themselves to boost the performance and productivity of their start-up. “People need to feel inspired. Being more connected with others, and integrating their personal and professional selves, will deliver deeper meaning and satisfaction to the people that make up your business.”

But it doesn’t end there. Mara encourages leaders to raise their own self-awareness by connecting to their emotions and heart. This will “unleash their intuition, and they can profit from the success they create as a result.”

It is a win for the heart – and for business. [heartmath.org](http://heartmath.org)
**Neil Frazer**

*Escarpe*, 2007  
oil on canvas  
152 x 152 cm  
Donated by Neil Frazer in 2017 through the Australian Government’s Cultural Gifts Program.

(Photograph: Effy Alexakis, Photowrite)