SOCIAL SCIENCES

Leave work at work to ensure better health and sleep

Research has revealed that continuing work-related activities after hours has an adverse impact on productivity, sleep and stress.  

‘Strongest evidence yet’ that being obese causes depression

Virtual mining to attract next generation of geologists

Are you ready to face a major fire this summer?

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Health check reveals disparity between city and country
UniSA car mirror tech ‘collides’ into art at National Portrait Gallery

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New research has found the strongest evidence yet that obesity causes depression, even in the absence of other health problems.

The research by UniSA and the University of Exeter in the UK, shows that the psychological impact of being overweight causes depression, rather than associated illnesses such as diabetes.

Researchers looked at UK Biobank data from more than 48,000 people with depression, comparing them with a control group of more than 290,000 people born between 1938 and 1971, who provided medical and genetic information.

Hospital data and self-reporting were used to determine whether people had depression.

Director of the Australian Centre for Precision Health, UniSA Professor Elina Hypponen, who co-led the study, says the team took a genomic approach to their research.

"We separated the psychological component of obesity* from the impact of obesity-related health problems using genes associated with higher body mass index (BMI), but with lower risk of diseases like diabetes," Prof Hypponen says.

“These genes were just as strongly associated with depression as those genes associated with higher BMI and diabetes. This suggests that being overweight causes depression both with and without related health issues – particularly in women.”

At the other end of the BMI spectrum, very thin men are more prone to depression than either men of normal weight or very thin women.
"The current global obesity epidemic is very concerning," Prof Hyyponnen says. "Alongside depression, the two are estimated to cost the global community trillions of dollars each year.

"Our research shows that being overweight doesn’t just increase the risks of chronic diseases such as cancer and cardiovascular disease; it can also lead to depression," Prof Hypponen says.

The research is published in the *International Journal of Epidemiology*.

*Obese individuals are classified as people with a body mass index (BMI) greater than 30 kg/m².*

To work out your BMI:

- divide your weight in kilograms (kg) by your height in metres (m)
- then divide the answer by your height again to get your BMI.

You can also use a BMI healthy weight calculator.
'Strongest evidence yet' that being obese causes depression
Virtual mining to attract next generation of geologists

by Dan Lander

UniSA students will be able to use virtual and augmented reality to experience what it’s like to be an on-site geologist, thanks to a new immersive virtual reality (VR) education and outreach program the University is developing.

The project, Learning through Immersive Virtual Environments for Minerals and Mining (LIVE-MM), will create interactive virtual reality experiences to allow students to “become a geologist for a day”, using the power of VR to provide an insider’s view of geoscience in action and serve as a launching pad for future careers.

The program is designed to help to attract the best and brightest to the Australian minerals industry.

A team from UniSA, led by Program Director of Environmental Science and Geospatial Science Associate Professor Tom Raimondo, will develop the platform over the next two years.

Assoc Prof Raimondo says there will be great synergy between the project and the recently announced $215m MinEx Cooperative Research Centre dedicated to developing a more sustainable and productive minerals industry for Australia.
Virtual mining to attract next generation of geologists

“The MinEX CRC will effectively act as a research arm for the mineral exploration industry, so not only will UniSA be leading the research that will drive the future of this industry, with these VR modules, we’re also doing the outreach it depends on to attract the best talent,” Assoc Prof Raimondo says.

With $100,000 funding support from the Australasian Institute of Mining and Metallurgy Tomorrow’s Professionals Program, the focus of Project LIVE-MM will be to capture key field sites and activities that convey core minerals industry skills and capabilities – from developing fundamental geological knowledge and its application, to innovative research studies and their use in revealing the subsurface, to demonstrations of new technologies and how they are employed in authentic scenarios.

Project LIVE-MM will extend UniSA’s successful virtual reality initiative, Project LIVE (www.projectLIVE.org.au), a cross-disciplinary program that uses immersive visualisation technologies to create engaging experiential learning exercises, and Assoc Prof Raimondo says the experiences developed for the new project will be at the cutting edge of the field.

Ability to interact with 3D models to unpack key geology data

"People will be able to interact with 3D models to achieve a particular goal, progressively unpacking the information provided to make sense of it," he says.

"So, it will function like a series of mini games or tasks within the virtual environment, rather than a passive learning experience that is a bit like a documentary."

Highly instructive field sites are often situated in inaccessible or remote locations where training visits are impractical or cost-prohibitive, and recent advances in virtual and augmented reality have meant these sites can be captured and shared in a way that immerses students, researchers and others in the field environment.

Digital visualisation is achieved through a suite of technologies including Remotely Piloted Aircraft (drone) surveying, 3D photogrammetry, gigapixel photography, terrestrial laser scanning (LiDAR), 360-degree panoramic photos and videos, augmented reality apps and VR headsets.

“These modules will give students a critical first impression of the industry that is both fun and stimulating and interactive, and the program will provide early exposure to digitally-enriched learning and technologies that are already being used in professional practice," Assoc Prof Raimondo says.

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Are you ready to face a major fire this summer? more

**COMMUNITY**

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Virtual mining to attract next generation of geologists
Are you ready to face a major fire this summer?

by Candy Gibson

Safa Molan demonstrating the virtual reality headset.

> Firefighters get fitness ‘tools of trade’ to stay safe on the job

UniSA researchers have joined forces with the SA Country Fire Service (CFS) to give residents a searing experience of a bushfire – all from the safety of a virtual reality headset.

Residents in Tea Tree Gully, Belair, Mylor, Hahndorf and Gawler have had the chance to experience a computer-generated major bushfire through a virtual reality headset, replicating real-life conditions minus the heat.

Developed by UniSA PhD student Safa Molan and her supervisor Associate Professor Delene Weber in conjunction with the CFS, officials hope the virtual reality scenario – an Australian first – will remind residents of the need to prepare bushfire survival plans ahead of a potentially lethal summer.

The fire danger season for the Mount Lofty Ranges and metropolitan fire ban districts has been brought forward by two weeks to 17 November because of a drier than average winter and increased temperatures through spring.

“The virtual reality scenario replicates typical conditions experienced in a major fire, including strong, changeable winds fanning the flames,” says Assoc Prof Weber, an environmental scientist in UniSA’s School of Natural and Built Environments.

"It puts users under pressure to decide whether to leave their homes early or stay and defend – in essence, what a bushfire survival plan is designed to do.

"The scenario is realistic but safe and underlines the importance of being prepared in the event of a major fire. Too often people think they will ‘leave early’ but then delay their departure, making evacuation more dangerous,
“Are you ready to face a major fire this summer?”

“One person in the Sampson Flat fire explained they were waiting for the sound of the freight train (the noise a major fire makes when it is approaching), which is way too late to leave.”

And while some people did stay and defend their properties during the 2015 fires, they told UniSA researchers that although they were physically prepared, the emotional experience of the fire was devastating.

“We often fail to recognise that the impacts of an experience with fire extend well beyond the incident itself,” Assoc Prof Weber says. “This virtual reality scenario allows people to experience what the consequences may be like if they do stay and defend. For some people this might encourage them to rethink their plans.”

Virtual reality headsets are now being used by several emergency service groups to train their own staff, but involving the public is an Australian first.

The scenario builds on research conducted as part of a joint UniSA and University of Adelaide Australian Research Council grant.

Researchers found people’s knowledge of fire as a natural part of the Australian ecosystem was relatively high, as was their acceptance of prescribed burns. However, it was clear that many people hadn’t got around to making a bushfire survival plan, or they “had it in their head”.

The 15-minute virtual reality scenario shows people the types of decisions that need to be made as a fire approaches and ultimately, hopefully encourages people to sit down and make a bushfire survival plan.

Assoc Prof Weber urges residents to visit the CFS website (cfs.sa.gov.au) for a step-by-step guide to help them prepare a bushfire survival plan.

UniSA researchers and the CFS will use the feedback from the virtual reality scenario to better understand how different people react in a fire.

PhD researcher Safa Molan says that they also hope to develop different scenarios, including one for children, and one for people holidaying in fire-prone areas.

CFS Bushfire Safety Project Manager Peta Donohue says she is looking forward to seeing the results to find out if VR can provide genuine changes in behaviour.

“We learned from community research and experiences at Sampson Flat that some people were physically prepared for the fire, but not emotionally. We need to find ways for people to practice their bushfire survival plans without putting them at risk,” she says.

Adelaide Hills residents had the chance to try out the technology at a series of locations in November, organised by the CFS and UniSA. But people who are interested can also register to attend a scheduled appointment at UniSA’s Mawson Lakes campus until 19 December by contacting Safa Molan.

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**Firefighters get fitness ‘tools of trade’ to stay safe on the job**

by Michèle Nardelli

UniSA, the SA Metropolitan Fire Service (MFS) and the Bushfire and Natural Hazards CRC, are hoping to spearhead new research designed to give firefighters the best chance to stay, safe, fit and effective on the job.

The new partnership will support an industry-based PhD scholarship to investigate firefighters, as occupational athletes, and develop a range of tools so that they can monitor and evaluate their fitness throughout their careers.

UniSA’s leading exercise and sports scientist, Professor Kevin Norton, says firefighting has some of the most stringent entry fitness criteria of any career, but no strong framework for maintaining relevant fitness for the work involved.

“Firefighters are generally active types, often triathletes, or active in other sports, and to some...
"But research shows that fitness and preparedness in one activity, doesn't guarantee a person is ready for a different set of physical challenges.

"What the MFS has recognised is the importance of working with firefighters on the ground, to uncover the evidence for a strength and fitness regime appropriate for the demands of the job.

"The ultimate goal will be to develop a framework that supports better outcomes for firefighters and ensures they have a training regime that will help them to operate safely in the often extreme and physically taxing emergency services environment."

The $122,500 scholarship will support a PhD candidate for 3.5 years and applications close on 16 November 2018.

MFS Chief Officer Michael Morgan says the partnership represents the first time such industry-focused research has been done in Australia related to firefighter fitness.

"Industry related fitness programs do exist, but through this PhD research we will be framing something that is both evidence-based and designed for and with firefighters, cognisant of the challenges of shift work, and of the physical demands of firefighting," Morgan says.

"In developing a relevant strength and fitness training map we hope to give firefighters some tools to support greater health and safety and fewer on the job injuries."

More information about this industry research scholarship opportunity is available online.
From the Vice Chancellor

We have a lot to celebrate and I was reminded of this recently at the fourth annual Alumni Awards. Every year we recognise four of our alumni who have, in some way, made a unique difference to their communities by combining their natural talents with the skills we’ve taught them.

This year we moved venue from the Brookman Building, which was a classic environment for a formal dinner, although its airconditioning was more suited to the turn of the century (the 20th, not the 21st) and held it at Pridham Hall. We said Pridham Hall was for all of our celebrations and outside of graduations, this is the biggest celebration yet. Once again four great people, people who have studied and graduated from UniSA and worked and made a huge difference to their communities, were honoured.

Kirsten St George graduated from UniSA with a Bachelor of Applied Science in Medical Technology and is now Chief of Viral Diseases at New York’s Wadsworth Centre. She is recognised as one of the world’s leading authorities on viral diseases.

James Tan graduated from UniSA with a Bachelor of Business Administration and has become a hugely successful early-stage technology investor in artificial intelligence, e-commerce and marketplaces, entertainment, finance, food, insurance, logistics, media, property, sports and the Islamic digital economy.

Amanda Vanstone graduated from our predecessor, the South Australian Institute of Technology, with a Graduate Diploma in Legal Practice. She was elected to the Australian Senate as a Liberal Senator for South Australia and held several ministerial portfolios in the Howard Government. She became Australia’s Ambassador to Italy and has since developed a career in media with several board positions, including that of chair of our own Samstag Museum of Art.

James Charles graduated with a Bachelor of Podiatry from UniSA, added a Masters and finally a PhD and found that changing foot structure is one of the causes of poor foot health outcomes that result in high cases of foot
amputation in Aboriginal populations. He is now educating students and health professionals on how to provide culturally appropriate foot care.

As Australia’s University of Enterprise we focus on educating people who will make great contributions, not only to the careers they choose but to the communities they belong to. We partner with industry and the professions in research that pushes the boundaries of human knowledge and finds new solutions to society’s most pressing problems.

At UniSA we’re looking at new ways to transform society. Our learning will always be informed by our research and that research will be industry-partnered and useful, capable of contributing to the health and sustainability of our community. Our research initiatives are focused on real world impact, entrepreneurship and commercialisation, finding new ways to improve health, develop the economy and transform society. Sustainably.

You’re familiar with the quality of the people that we have already graduated. Just wait until you see the results once Enterprise25 gets going. As you know, it’s centred around Programs, People, and Precincts. We will sharpen our focus on our best programs, further investing in making them world class. We’ll review and reshape them with the very best academic and curriculum expertise and the best new knowledge from our research from across the University. Many of these programs are already among the best in Australia now; soon they’ll be among the very best in the world, enhancing UniSA’s status as a national and international study destination.

Through Enterprise25 we’ll continue to hire great people to bring this all about. We’ll attract the best talents and we’ll invest in their professional development so that they can grow and thrive with us. While focusing on high performance, the environment in which we all work will be a culturally and physically safe environment. We will pursue accreditation as an Athena Swan Gold site institution which demonstrates sustained achievement in gender equality and champions and promotes good practice in the wider community. And, as always, we will strive to deliver as the University of Choice for Aboriginal and Torres Strait Islander people, an institution that is open to all those who aspire to advancement through education.

Ultimately, we’ll wrap all our plans together in revitalised spaces where disciplines that are closely allied can be located together. We’ll break down those barriers between people, disciplines and ideas and cluster our research and academic communities with like-minded business and industry partners in collaboration-friendly spaces that feed each innovation and creativity.

It is a new vision of a university, one which produces career-ready graduates who will be equipped with the world’s most cutting-edge ideas in whatever discipline they choose.

And it starts next year. In January. So shake the sand out of your shoes and get ready for future celebration of achievement yet to come.

Professor David Lloyd
Vice Chancellor and President

See more photos from the annual Alumni Awards in UniSA News In Pictures.
Achievements and Announcements

**ACHIEVEMENTS**

**UniSA researchers blitz Winnovation Awards**

Future Industries leader made a fellow of technology and engineering academy

UniSA graduate, now AFL umpire, named SA Young Australian of the Year

Business School honoured for outstanding customer service

UniSA student becomes youngest councillor in the State

Marketing students take first prize in international business challenge

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Training program to improve rural antenatal care expands

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**ACHIEVEMENTS**

**UniSA researchers blitz Winnovation Awards**

UniSA researchers have dominated the recent Women in Innovation Awards, taking out six of the 10 categories in an outstanding result for the University.

The Winnovation Awards showcase and celebrate the successes of female innovators in South Australia.

In a night described as “extraordinary” by UniSA’s Deputy Vice-Chancellor: Research and Innovation, Professor Tanya Monro, the quality of research and innovation among UniSA’s female academics was rewarded with the following results:

- **ARTS:** Anika Johnstone for MOD.IFY, the University’s new museum driven by a desire to engage a younger audience in science, technology; engineering and maths;

- **ENGINEERING:** Professor Yan Zhuge (School of Natural and Built Environments) for her work recycling tyres into high value building materials for structural engineering applications;

- **MATHS and DATA:** Dr Tina Du (Information Technology and Mathematical Sciences) for her work using data-driven approaches to develop innovative guidelines for international tourism;

- **SCIENCE:** Dr Chia-Chi Chien (Future Industries Institute) for her innovative, microfluidic 3D tumour-on-a-chip research;

- **SOCIAL IMPACT:** Professors Fiona Arney and Leah Bromfield (Australian Centre for Child Protection) for their work aimed at preventing and responding to child abuse and neglect;

- **OPEN:** Dr Renly Lim (School of Pharmacy and Medical Sciences) for her unique science-art program, Village Drama Against Malaria, to fight the world’s deadliest mosquito in Cambodia.

Two other UniSA researchers – Dr Marnie Winter and Associate Professor Nikki Stanford from the Future Industries Institute – were also finalists on the night.

“This is an outstanding result and underlines UniSA’s reputation for enterprising, innovative and industry-
engaged research and the quality of our female researchers and teachers," Prof Monro says.

"At UniSA we are committed to the SAGE (Science in Australia Gender Equity) Athena Swan Charter to promote gender equity and diversity in STEM, supporting the aspirations of our talented women, so we individually and collectively thrive."

Women in Innovation SA president Nicole Swaine says the judges were “amazed and inspired” by the entries received, demonstrating the great work in STEM, business, government and the arts in South Australia.

This is the fifth year the awards have been held. The awards are open to South Australian female residents and businesses actively supporting their South Australian employees.

**Future Industries leader made a fellow of technology and engineering academy**

World-leading analytical chemist and director of UniSA’s Future Industries Institute, Professor Emily Hilder, has been made a Fellow of the Australian Academy of Technology and Engineering.

A pioneer of disruptive approaches to chromatography, microsampling, blood analysis, explosives detection and biopharmaceutical analysis, Prof Hilder’s technological advances have been adopted commercially around the globe, including for the determination of contaminants in heparin, used by the United States Food and Drug Administration.

Prof Hilder has worked closely with industry and end-users throughout her career including SMEs and large multinational companies such as Trajan Scientific and Medical, Thermo Fisher Scientific, Agilent Technologies and Pfizer.

She was the inaugural director of the ARC Training Centre for Portable Analytical Separation Technologies (ASTech) and is currently deputy director of the ARC Research Hub for Integrated Device for End-user Analysis at Low-levels (IDEAL).

These initiatives focus on fostering collaborative research, bringing university researchers and industry together to share their skills and expertise to solve problems and develop new products, processes and services that will transform Australian industries and train the next generation of industry-ready research scientists.

She also leads the Future Industries Accelerator (FIA), a $7.5 million investment from the State Government that supports industry, especially SMEs to engage with researchers across UniSA.

Through access to research infrastructure, support for R&D projects and a mobility program for staff secondments, FIA has supported more than 100 companies across numerous projects, creating at least 40 jobs in South Australia since 2016.

Prof Hilder says she is delighted with the acknowledgement from the academy and the opportunity to play a leadership role nationally in promoting excellence in engineering and technology.

“As director of UniSA’s Future Industries Institute, I am privileged on a daily basis, to be working with teams of highly talented researchers, all committed to making a difference by carrying out their research in partnerships that advance solutions-focused research for industry and the community,” she says.

Prof Hilder joins 24 other experts from across Australia as new fellows of the academy. They will be welcomed at its annual meeting in Melbourne on 23 November.

**UniSA graduate, now AFL umpire, named SA Young Australian of the Year**

A UniSA graduate who made history by becoming the first woman to officiate Australian Football League (AFL) games as a field umpire, has been named the 2019 SA Young Australian of the Year.

In 2017, Eleni Glouftsis became the first woman to officiate an AFL game as a field umpire.

Glouftsis completed a double degree in Human Movement and Education at UniSA.

While in high school, she began umpiring for amateur leagues and was awarded an AFL Female Pathway Scholarship. Through her dedication to the sport, Glouftsis became the first female umpire in the South Australian National Football League –
before going on to umpire 33 senior games for the Victorian Football League. After working hard on her fitness levels, Glouftsis finally broke though at the highest level in 2017.

Glouftsis says she hopes her history-making move into the top ranks of the umpiring world will inspire young girls passionate about umpiring.

She currently lives in Melbourne but has a long-term ambition to umpire a game at Adelaide Oval.

"All my friends and families are her in South Australia, they supported me through my SANFL and junior years so to be out there on the big stage would be amazing," Glouftsis says.

Two other UniSA students were also nominated for the SA Young Australian of the Year award – Health student Apiu Nyang and Psychology student Arefa Hassani. PhD student Jelina Haines was nominated for the South Australian Local Hero award.

**Business School honoured for outstanding customer service**

The UniSA Business School took out top honours at the 2018 Australian Service Excellence Awards (ASEA), winning the Organisation of the Year award for outstanding customer service in the not-for-profit and government category.

Hosted by the Customer Service Institute of Australia, the ASEAs are Australia's premier customer service awards, recognising best practice and innovation in customer service.

The UniSA Business School is the first university to be named a finalist in the ASEAs.

The awards are based on international standards that are designed to help organisations develop, measure and improve an effective customer service management system.

UniSA Pro Vice Chancellor (Business and Law) Professor Marie Wilson says the award is wonderful recognition for the Business School's dedication to service.

"This award showcases the Business School's distinctive approach to customer service," Prof Wilson says.

"We were among an impressive group of 60 entrants, so winning this high calibre award is testament to our commitment to customer service in all that we do."

Not only did the Business School win the overall category, but a member of their team – Milan Mili, concierge for the UniSA Business School, won the individual Extraordinary Customer Service award, an honour created just for him after the judging panel's exceptional experience when visiting the Business School.

"These awards recognise the hard work and commitment of our team, and it's this unique and high level of performance that makes a difference to the success of our students," Prof Wilson says.

**UniSA student becomes youngest councillor in the State**

A UniSA student has been elected to Campbelltown City Council – making her South Australia’s youngest councillor.

Luci Blackborough, 18, who’s studying a Bachelor of Marketing and Communication at UniSA’s Magill campus, has been provisionally elected to Campbelltown council in the recent local government elections.
Luci previously completed a two-year traineeship at Unley Council during high school and is a member of the Campbelltown Youth Advisory Committee.

“I’m so excited to get started,” she told The Advertiser.

“I just want to make a difference in my community … I think the council can move more into the 21st century and I want to help.”

But in the longer term, Luci says she hopes to work in an area related to her degree.

“I still want to do something in marketing and communications in the future, I’m going to juggle uni with representing my community,” she says.

**Marketing students take first prize in international business challenge**

The calibre of UniSA’s marketing students shone in the recent Australian and New Zealand Marketing Academy (ANZMAC) Business Strategy Challenge, with UniSA students awarded first prize in the international competition.

Three higher degree by research (HDR) students from the School of Marketing, Sahar Faghidno, Pei Jei Tan and Chris Miari, ran a simulated athletic footwear company against university students from across Australia and New Zealand.

Over a six-week period, through an online simulation, they had to manage the production, operations, staffing requirements, shipping and inventory, pricing, promotional activity, corporate image, social responsibility, and finance.

They won the challenge and will share a $1500 research fund. The award will be presented during the ANZMAC annual conference in Adelaide in December.

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**ANNOUNCEMENTS**

**Training program to improve rural antenatal care expands**

A program designed to improve antenatal care in rural communities – by providing remote healthcare professionals with the skills and resources to save the lives of mothers and babies – has been extended until October 2020.

UniSA and The Hospital Research Foundation’s (THRF) Healthy Newborn Project provides an integral ultrasound training program to equip remote doctors and midwives with the skills to provide antenatal ultrasounds in their communities, where these services are often unavailable.

Earlier this year 25 doctors and midwives attended two workshops in Adelaide, led by Associate Professor Nayana Parange, Professor Eva Bezak and their team from UniSA.

Associate Professor Parange says ultrasound plays an integral part in antenatal care and provides timely diagnosis of potentially life-threatening complications.

“Research has shown that ultrasound access is limited, delayed or non-existent in many rural and remote communities in Australia,” Assoc Prof Parange says.

Support from THRF’s generous donors has provided an additional $160,000 to sustain the project for a further 18 months until October 2020.

Continued funding allows 12 additional remote healthcare professionals to participate in the antenatal ultrasound workshop and 12 past participants to attend a skill strengthening follow-up session.
Achievements and Announcements

Rural GP Dr Kellie Mibus, based at Waikerie, says the workshop included invaluable simulation work and practice on pregnant women.

“The simulation was great for understanding the images we would see on real life patients and improving our techniques with obtaining these images,” Dr Mibus says.

The team will conduct an Australia wide needs analysis survey to gather data around antenatal ultrasound access in rural communities – improving understanding of the barriers to these communities will allow a physical resource to close the gap and save lives of mothers and babies.

Healthcare professionals in regional and remote Australian communities who are interested in more information about the training, should contact Amber Bidner from UniSA.

Professor Irene Watson to challenge terra nullius principle in London

The principle of terra nullius – that the land belongs to no one – will be challenged by UniSA Professor Irene Watson when she delivers the 2018 David Unaipon Lecture later this month.

Prof Watson, the Pro Vice-Chancellor of Aboriginal Leadership and Strategy at UniSA and an Aboriginal law expert, says the terra nullius principle is a racist one and no longer applicable to the modern world, yet is still applied as the foundational principle of the Australian state.

“It is time we recognised that Aboriginal peoples inhabited Australia first – 65,000 years ago in fact – and managed this land extremely well until the invasion of the continent,” Prof Watson says.

“Acknowledging that truth is the first step towards addressing the power imbalance between Aboriginal people and non-Aboriginals, which continues to be shaped by the dynamics of colonial power.”

Prof Watson will deliver the 2018 David Unaipon Lecture at the Menzies Australia Institute, King’s College London (KCL) on 28 November, on the topic "Aboriginalising Australian Centres of Power".

Her talk will focus on the failure of Australia to recognise Indigenous peoples, despite a 2007 United Nations declaration (UNDRIP) setting out minimum standards for Indigenous rights.

Prof Watson, who is also a Professor of Law in UniSA’s Business School, belongs to the Tanganekald, Meintangk Boandik First Nations Peoples, of the Coorong and south east of South Australia.

The David Unaipon Lecture is part of the Aboriginal and Contemporary Australian Studies Fellowship Program, a collaboration between UniSA and the Menzies Australia Institute, KCL.

Students name new building after UniSA deputy vice chancellor

One of South Australia’s earliest primary schools, Parkside primary, has continued a tradition of naming new buildings after local role models with its new Monro Building for Science, Technology, Engineering and Maths.

The Monro Building has been named in honour of award-winning Australian physicist and Deputy Vice Chancellor: Research and Innovation at UniSA, Professor Tanya Monro.

Parkside primary school deputy principal, Adrianna Kyriacou, says the process to choose a name for the new STEM building was one that engaged all the Year 6 and 7 students.

“We challenged them to write a submission about who they believed we should name the building for and why, and Tanya’s career example was selected as the most closely associated with our vision for STEM at Parkside,” Kyriacou says.

“It’s been a great process and we are really delighted with the outcome.

"Not only is she a talented and gifted scientist, she is also a role model for all Australian girls, a champion for STEM education more broadly, and a wonderful science communicator.

"Part of what we are encouraging at Parkside Primary is a cross-curricular approach to learning in STEM with a strong focus on collaboration and tackling real-world problems and I know that is an approach Tanya has taken
in her own career."

The new Monro Building will serve the 400+ student community as four classrooms with a central STEM hub of flexible design, to cater for a range of changing configurations to suit science and technology activities. The building is home to all the school’s robotics and includes 3D printing facilities. Aspirations for future additions to the space, include a green screen and audio-visual learning pod.

Prof Monro says she was surprised and delighted by the news.

“What an extraordinary honour,” she says.

“IT is touching to hear that students at such a formative age have researched my career and found it inspiring. I am passionate about STEM and about encouraging more children to understand the career potential and power that comes from studying these subjects.

“I think it is clear that the leadership at Parkside primary school is putting enormous thought and effort into giving their students every chance to seize the opportunities STEM can bring for their future.”
Health check reveals disparity between city and country

by Michèle Nardelli

In the largest health survey ever conducted of regional South Australia, UniSA’s Department of Rural Health has found that people in the region may have a poorer state of health and wellbeing than their city compatriots.

Data from almost 4000 respondents shows that country people may have more problems with high cholesterol, poor sleep, high blood pressure and allergies.

Senior research fellow at UniSA and lead investigator for the project, Dr Matthew Leach, says the results suggest that a health gap between people living in rural and regional SA and those living in the city seems to exist.

"People on the Limestone Coast reported a poorer level of overall health and wellbeing with relatively higher rates of high blood pressure, depression, anxiety, elevated cholesterol levels, allergies and sleeping disorders than people living in metropolitan SA," Dr Leach says.

"But it is not all doom and gloom. Overall, while they could be eating more fruits and vegetables to improve their diet, people in the Limestone Coast appear to be more likely to engage in physical activity and less likely to smoke or drink alcohol at risky levels than their metropolitan counterparts.

"Those factors help to provide some protection against chronic diseases – so that is good news."

Dr Leach says there are relatively high rates of health care utilisation (including GPs, pharmacists, dentists, massage therapists and chiropractors) in the Limestone Coast compared with metropolitan SA.

"But despite the high level of health care use, about half of people surveyed in the Limestone Coast felt they were unable to access health care services when they felt it was needed – primarily because of distance and cost.
"What this suggests is that there is unmet health care need in the region."

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HEALTH

‘Strongest evidence yet’ that being obese causes depression

more
Leave work at work to ensure better health and sleep

by Candy Gibson

Research has revealed that continuing work-related activities after hours has an adverse impact on productivity, sleep and stress.

An international study of 230 healthcare employees over two years found that continuing to work after hours – whether it’s emailing, checking phones, laptops and text messages – has an adverse effect on productivity and recovery.

In a paper published in the *International Journal of Environmental Research and Public Health*, researchers from UniSA, the Netherlands and Japan show that work-related activities after hours affect sleep quality and the ability to relax and recharge for the next day.

Director of UniSA’s Asia Pacific Centre for Work, Health and Safety, Professor Maureen Dollard, says modern technologies increasingly mean that employees are tuned in to their workplace during leisure time, erasing the boundaries between work and home.

“What the study is showing is that if you finish work and still engage in work-related activities, then you’ll find it more difficult to detach in those areas, and this is really bad for recovery, work stress and sleep quality,” she told *The Lead*.

“Managers need to create a climate in which working beyond regular hours is not ‘business as usual’ because taking work home impedes cognitive function and productivity,” Prof Dollard says.

“Both managers and employees should find creative ways to accomplish job demands within regular work
Leave work at work to ensure better health and sleep

**Tips to ‘switch off’ from work**

Lead researcher, UniSA Adjunct Professor Jan de Jonge, says low-effort activities such as reading, watching television or listening to music help people detach from work and ensure a good night’s sleep. Previous research has shown that a daytime nap of around 30 minutes also helps to restore alertness and improve productivity.

Work-related tasks, however, affect our mental and emotional recovery states after work. On the other hand, housework, cooking and looking after children are positively related to sleep quality in the long run.

“These latter activities are both resource-depleting and enhancing, helping to both disengage from the job and get a better night’s sleep,” Prof de Jonge says.

Exercise is a good way to switch off if it’s not too late in the day, otherwise it can spike adrenalin and cortisone levels in the body, making it difficult to wind down and sleep.

**Lessons for employers**

Prof Dollard says the study demonstrates that employers should not be requiring workers to be switched on emotionally and cognitively outside of reasonable hours.

“There can be procedural things that organisations can do, like when your boss sets a good example by not sending emails outside work hours and sets some clear parameters around that,” she says.


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UniSA car mirror tech ‘collides’ into art at National Portrait Gallery

by Chloe Byrne

Technology pioneered by UniSA to replace glass in car mirrors has been combined with the work of LA-based celebrity and entertainment photographer John Tsiavis to create a unique piece of art featured in the National Portrait Gallery’s latest exhibition.

The portrait of Vietnamese-Australian neurotechnology entrepreneur Tan Le incorporates the mirror technology designed by Industry Associate Professor Colin Hall, from UniSA’s Future Industries Institute. The technology was designed as a lightweight and more durable alternative to the glass used in traditional car mirrors.

The artwork is one of 20 pieces commissioned by the National Portrait Gallery to celebrate the gallery’s 20th anniversary, in an exhibition called 20/20.

Assoc Prof Hall worked closely with Melbourne-based lighting experts and coating specialists from Motherson Innovations to bring the 1.2m circular artwork to life. The piece comprises the specially-designed mirror surface carefully layered with Tan Le’s portrait.

“The ‘revealing mirror’ technology combines a semi-transparent mirror with an angular selective filter in front of a light box,” Assoc Prof Hall says.
"Light shines through the portrait, which is angularly filtered and then further hidden by the mirror.

"Approaching the piece, the viewer is confronted by an image out of focus, and Tan almost appears ethereal.

"As the viewer changes their position, the image shifts and reflections abound – finally it comes into stark focus once you stand directly in front of it."

The collision of science and art presents a perfect metaphor for the challenge of perceptions – both literal and conceptual – as the viewer observes their own reflection shifting to the copper-tinged portrait of Le, a Vietnamese refugee-turned-entrepreneur.

Assoc Prof Hall, who attended the official NPG 20/20 launch in Canberra on 19 October, says the experience of showing the innovative coating and lighting technology in a whole new setting has been a fantastic experience.

"It’s cool to have something you helped create be the focus of such attention," he says.

"I hope those who see the portrait get a better appreciation for science on two levels. Firstly, I hope it enhances their experience and gets them thinking about Tan Le and her work – to properly celebrate her contribution to Australia.

"Secondly, it’s a chance to get our story of innovative coating and lighting tech, which happens right here at UniSA, in front of a completely different audience."

The 20/20 exhibition features 20 Australians recognised for their notable contributions to society across a range of fields.

The Australian photographer who conceptualised the piece and captured Le’s image, John Tsiavis, is known for his film stills (such as the iconic image of Eric Bana as Chopper Read) and has had his work published in magazines including Time, Rolling Stone, The Good Weekend, Marie Claire and Vogue Living.

The portrait will be on show at the National Portrait Gallery until 10 February.

RELATED STORIES

New MOD. exhibition lets visitors experience life in a deployable hospital

Manufacturing miniatures to inspire STEM studies
New MOD. exhibition lets visitors experience life in a deployable hospital

by Michèle Nardelli

Saab Australia is using augmented reality to design deployable hospitals. Visitors to MOD.’s new exhibition, Waging Peace, will be able to try the technology for themselves.

MOD. welcomes 50,000th visitor

Visitors to the upcoming exhibition at UniSA’s futuristic museum of discovery, MOD., will have the chance to see and feel a part of a deployable hospital in holographic form.

UniSA is partnering with Saab Australia so that visitors to MOD.’s new Waging Peace exhibition will be able to walk through a virtual field hospital and experience it as medical staff would in real scenarios where emergency medical support is needed, using mixed reality smartglasses – HoloLens®.

The exhibition will provide rare insight into how augmented reality (AR) is helping in the design and set-up of sophisticated deployable medical technologies in disaster zones and will be a first for South Australia. Waging Peace opens on 27 November and includes an array of exhibits designed to challenge traditional ideas of peace-building.

MOD. director Dr Kristin Alford says the collaboration with Saab will give people first-hand experience of how AR technologies are being used by local industry to innovate the design process using cutting edge technology.

“The innovations pioneered by the defence sector are much broader than people imagine and often underpin civilian applications that enhance our capacity to deliver health care, emergency assistance and other much needed human services,” Dr Alford says.

The collaboration builds on a joint agreement signed in 2017 by Saab and UniSA to establish the Saab Australia-UniSA Defence Technologies Institute, a collaboration designed to develop a key education and research pipeline for highly skilled systems engineers in SA.

New MOD. exhibition lets visitors experience life in a deployable hospital

That partnership also supports the ongoing development and refinement of AR technologies, along with autonomous systems, cybersecurity and complex systems engineering through engagement with UniSA researchers.

Saab Australia managing director Andy Keough says the Augmented Relief exhibit will give people a better idea of the incredible adaptability of augmented reality technologies.

"Using this technology, we can see what works and in what circumstances, so it means we are able to design more efficient medical facilities for the field," he says.

"We can then test those designs and refine our work so that deployable hospitals and the medical technologies they contain are fit for all circumstances."

"We are delighted to be a part of the Waging Peace exhibition because it poses important questions about the social, environmental and human factors that influence peace, and understanding how technologies can actively support peaceful societies is a vital element of that story."

MOD. welcomes 50,000th visitor

MOD. reached a major milestone in late October when it welcomed its 50,000th visitor.

The achievement came in the last few weeks of MOD.’s first exhibition, MOD.IFY, which is now making way for a new exhibition, Waging Peace.

You can still experience MOD.IFY virtually through a 360 degree virtual tour, now live on UniSA’s YouTube channel. The video was made by a UniSA digital journalism student.

The second MOD. exhibition, Waging Peace, will invite visitors to consider whether it is possible to proactively and aggressively pursue peace.

MOD. welcomed its 50,000th visitor in late October.

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UniSA car mirror tech 'collides' into art at National Portrait Gallery

Manufacturing miniatures to inspire STEM studies
New MOD exhibition lets visitors experience life in a deployable hospital
Manufacturing miniatures to inspire STEM studies

by Chloe Byrne

In an Australian-first, the next generation of secondary school design and technology teachers is making miniature submarines and Formula One racing cars.

UniSA is the first Australian university to take part in the project, which is designed to give pre-service teachers a hands-on appreciation of how to inspire students to pursue further studies in science, technology, engineering and maths (STEM). Taking part in the two programs – one related to submarines and the other to F1 cars – is also designed to help future teachers identify a range of ways to provide their students with skills needed for careers in the Future Submarine Program and related industries.

UniSA’s School of Education is introducing the F1 in Schools and Submarines in Schools programs as part of the third-year Design and Manufacturing course, led by tutor Steve Read, for pre-service design and technology teachers.

The initiative, sponsored by SAAB and Re-engineering Australia, allows pre-service teachers to participate in challenge-based learning focusing on critical STEM principles.

The goal for students is to design and produce either a working model F1 car or submarine, utilising fundamental STEM-derived techniques such as the calculation of mass, buoyancy, and using 3D printing technology.

Bachelor of Education program director Dr Denise MacGregor says the
program allows pre-service teachers to gain an understanding of what a proven, world-recognised STEM project initiative looks like from within.

“The program is a STEM rich, challenge-based experience which promotes creative problem solving and independent and collaborative thinking,” she says.

"It is such an innovative project, and we are the only university in Australia that is involved.

“Students are enthused by the new technologies and the possibilities for its application once they commence teaching.”

Pre-service teacher Tim Durst says the initiative has demonstrated increased learning opportunities in STEM integration and how it can work in a cross-curricular environment.

“The industry contacts gained have been invaluable in the realisation of this program, as are the friendships built that will help with the implementation of future programs in a school setting,” he says.

The Submarines in Schools initiative was conceived in response to the Australian Government’s announcement of the $50 billion Future Submarine Program, and seeks to equip students with transferable skills for future STEM-based careers. A small team of pre-service teachers is hoping to attend the Submarines in Schools finals in Darling Harbour, Sydney in December.

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Cultural immersion deepens bonds with Indo-Pacific neighbours

The scenery and views of Melaka on a twilight river cruise.

> Travel diary: How a cultural exchange changed my view of the world

Study and travel don’t have to be an either-or situation, with university supported exchanges, internships, and mobility programs allowing students to travel the globe – and keep their heads in the books.

In September 2018, 17 UniSA students travelled on a three-week New Colombo Plan study tour to Kuala Lumpur, Malaysia, alongside senior lecturers Dr Ioana Petrescu and Dr Tangikina Steen.

The New Colombo Plan is a government initiative supporting about 10,000 Australian students a year to study and undertake internships in the Indo-Pacific region.

The ongoing program aims to deepen relationships and expand university, professional and stakeholder relations in the region, through a prestigious one-year scholarship program and short and longer-term mobility grants.

UniSA student Isabella Fornarino says the cultural exchange to The International Islamic University Malaysia was an enlightening opportunity to learn through shared culture, experience and ideas.

“Travel is one of the best ways to absorb new information about people, places and regions,” Isabella says.

“The study tour immersed me in not only a foreign country and culture, but also foreign religious ideology.

“At home our experience of university education and religious ideology are separate, so it was a huge shift in
Cultural immersion deepens bonds with Indo-Pacific neighbours

The group trekking through the Orang Asli jungle.

“The most valuable lessons I’ve taken from the tour are understanding and embracing difference and being open to new and unfamiliar outlooks.

“For me, the trip highlights were stepping outside the classroom to visit sacred cultural sites like the Batu Caves or hiking into the rainforest jungle to visit the indigenous Orang-Asli tribe.”

Fellow student Charlotte Lemmon, who went on the same tour, says it gave her new perspectives on one of Australia’s most significant neighbours.

“We were immersed in creative writing and literary criticisms in such different ways to what we were used to,” Charlotte says. “It was surprising to learn the rich Malaysian culture and Islamic religion influenced every book, theory and practice.”

She says it was an incredible experience and has written a travel blog (featured below) to encourage others to consider applying for a study tour.

UniSA students worked closely with students from the IIUM faculty of English Language and Literature, attending classes, activities and trips together.

The Malaysia study tour is part of an ongoing New Colombo Plan Mobility Grant that will continue into 2019. Upcoming New Colombo Plan destinations include Bangladesh, Fiji, Singapore, Thailand, Vietnam and many more.

UniSA undergraduate students aged 18-28 and enrolled in at least second year or Honours, may express interest in the New Colombo Plan Mobility Grant by emailing student.exchange@unisa.edu.au.

In addition to the Mobility Program, ambitious and high-achieving students with a keen interest in adding international study and work experience in Asia to their CV, are encouraged to submit an Expression of Interest for the highly prestigious New Colombo Plan Scholarship Program for 2020. For more information please refer to UniSA’s NCP Scholarship website.

The UniSA study tour group with academic staff from IIUM and UniSA at the IIUM Gombak Campus.

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Travel diary: How a cultural exchange changed my view of the world
by Charlotte Lemmon

In March 2018 a new email landed in my inbox…

Dear Miss Lemmon,
You are receiving this email because you have been successful in your application for the Kuala Lumpur Study Tour 2018, hosted by the International Islamic University Malaysia (IIUM). Enclosed is a scholarship offer from the New Colombo Plan, to the value of $3000…

I couldn’t believe it. A month after applying and being interviewed for the Kuala Lumpur Study Tour, I was successful and had been given a position. I was going to be a student at the International Islamic University Malaysia! The course was only for three weeks, but in that three weeks I would study my entire semester’s worth of my fourth-year creative writing course. The thought of receiving a scholarship and studying in such a unique environment seemed too good to be true. I was completely and utterly lost for words.

The five months leading up to my departure were a changing mix of emotions: Was I excited? Absolutely! Nervous? Perhaps even more so. Would I underestimate the gravity of this course and what it means for my final year at university and my career? You better believe it.

The group of students who had been selected for the tour – 17 in total – came from all walks of life. Some were studying their Masters, others only in their second year of university and the rest in their final year. We were dubbed, by our course supervisors, the Super 17.

The timing of the Kuala Lumpur study tour program meant the Super 17 would only miss one week of university, as two weeks of the course fell over the September holidays. The study tour counted as credit for the most intensive creative writing subject across my four-year degree and would provide a wealth of opportunities upon returning. Despite the hurdles of completing assessments early and asking for extensions for others, nothing could dampen my spirits of this opportunity.

It wasn’t until the week before I flew to Kuala Lumpur that it all hit me. The stress that had been nagging at the back of my mind came crashing down on me at full-force. I hadn’t focused on the idea that I would be travelling with a group of people I had only met on a few occasions before. I had travelled by myself, sure, but travelling with people I wasn’t familiar with was going to be a whole new ball game. I was so incredibly nervous that I wasn’t ready to go on a trip without my friends or family, it became overwhelming. All this time – in the five-month lead up – I was so curious as to how this trip would change me and my perspectives on life, and now I was chickening out!

I got to the airport (of course, I wasn’t going to let my nerves get the better of me) early on Saturday morning, 15 September. It was the first time the Super 17 had officially all been together at the same time. Little did we know at that point we were going to make some lifelong friendships, have epic adventures, and experience a rollercoaster of emotions together as we studied at a Muslim university.

We arrived at KL Airport in one piece, our Malaysian buddy counterparts waiting for us on the other side of immigration. They were so lovely, joyous in our arrival and clearly excited to get to know us all. I started to feel comfortable. We were all in the same boat – nervous, but eagerly awaiting the three weeks to come – there was definitely no need to stress about making friends with these guys. That afternoon we arrived at IIUM, and as much as I thought my worries wouldn’t go away, the sight of the beautiful university proved me wrong. The photos don’t do this place justice. IIUM’s motto is The Garden of Knowledge and Virtue, and the Gombak Campus embodies this in pure serenity.

The cream and pink buildings with bright turquoise domes and spires rose up against the valley of thick green jungle. Monkeys swung from the trees, running across the tops of the buildings with food they’d scavenged and returning to their home in the greenery.

We soon discovered the vastness of the campus – it took a bumpy 10-minute bus ride from the main gates to our dormitories. Upon exiting the bus, I felt like I was in a tropical bubble, the humidity and heat a sharp change from the wintry weather we had experienced less than 12 hours earlier in Adelaide. It was especially difficult because we had
to wear modest clothing. Back in Australia this weather would prompt everyone to wear thongs and singlets, but here at IIUM – in being respectful to our religious surroundings – we all covered our elbows and knees with long garments and the women had to cover their necks and hair with headscarves.

Classes started in the following days and we began to feel at home. Friendships were being formed, routines were being set, and activity plans were being made for the coming weeks. We were immersed in creative writing and literary criticisms in such different ways to what we were used to. It was surprising to learn the rich Malaysian culture and Islamic religion influenced every book, theory and practice. But these classes were not the whole point of the trip.

It was very clear we were going to culturally experience Malaysia in more than just the classroom.

Over the course of the three weeks the Super 17 took part in countless cultural adventures and traditions. We accompanied our buddies on day-trip excursions to the Batu Caves, KL Bird Park and Botanic Gardens and weekend trips to coastal towns Penang and Melaka. We played the traditional gamelan instruments in a university performance and attended countless literature classes with esteemed IIUM professors. We trekked through the jungle with members of the Indigenous Orang-Asli tribe and celebrated two Super 17 birthdays with nights in Kuala Lumpur’s city centre.

It was all over by Saturday 6 October. We’d lost track of time so quickly that it was crazy to realise our three weeks were up – that my time at IIUM was coming to an end. We had all become so close in such a short amount of time it was going to be hard to say goodbye. But as much as it was difficult to leave this beautiful country, I was ready to go home.

And now that I am home, I can’t believe it. So much happened in the three weeks I was away and yet it felt like nothing has changed in Adelaide, apart from it being a little warmer of course. I reflect on when I was scared and nervous to embark on such a radical trip and I smile, because it was all worth it.

The Super 17 made new memories, lifelong friends and most importantly, experienced a side to a religion often stereotyped (inaccurately) by our Western media. We were able to experience first-hand this different world, solidifying at the same time our own understanding of the Muslim religion, and experiencing the very nature of what makes us all different. None of this would’ve been possible without the New Colombo Plan initiative and scholarship opportunity. Seventeen minds were transformed the minute we arrived at IIUM, and hopefully many more Australian students can experience the same in the years to come.
Cultural immersion deepens bonds with Indo-Pacific neighbours
Outstanding UniSA research recognised through new awards

by Chloe Byrne

The incredible and innovative work of more than 70 of UniSA’s researchers has been recognised and celebrated through the first event of its kind to be held at the University.

UniSA has introduced a new suite of University-wide Research Awards, which were presented as part of the inaugural UniSA Research Day in late October.

The day showcased the best and brightest in research, offering an opportunity for inspiration and engagement, and to strengthen interdisciplinary connections through workshops and presentations.

The research award categories comprise Research Excellence; Research Training and Support; and Pathway to Impact, with 13 winners from more than 70 finalists. In all there were 117 nominations. The winners will share in $55,000 of professional development funding.

Winner of the Transformed-PhD Student of the Year award Tahnee Dening, who received the accolade for her unique research into clay materials and their ability to enhance drug efficacy, says it is encouraging to have her efforts recognised.

"Researchers work so hard on their respective projects, and sometimes we need a little confirmation that we are doing well and that our efforts are being noticed," she says.

"I’m most passionate about research when I feel like I am working towards a real-life problem – as a registered pharmacist, I am driven to develop new and improved medicines for patients.

"By undertaking PhD research at UniSA, I now have a job where I can help people from behind the scenes by..."
Outstanding UniSA research recognised through new awards

contributing to the science that drives improved medical treatments, and that is just as, if not more, rewarding to me (than working in the clinic).”

Dening's work has led her to her first postdoctoral position at the University of Kansas where she continues her research.

Research fellow Dr Brenton Hordacre, who received the Early Career Research award along with Dr Stephanie Reuter Lange, says the collaborative nature of UniSA research has allowed for continued success in his research into stroke recovery.

“Getting to work with chronic stroke patients on a home treatment program that helps people recover greater use of their limbs is extraordinarily rewarding in itself but it’s always encouraging to have your research recognised more broadly, particularly by your peers,” Dr Hordacre says.

“For research to be effective, it almost always needs to be done in collaboration, so I’m grateful to the many people who’ve helped and supported me along the way.”

Dr Hordacre is trialling two-week at-home treatment for stroke patients with impaired motor function. The program involves the patient or their carer attaching brain stimulation electrodes to the motor cortex region of the head for 20 minutes each day, followed by a series of physical exercises, lasting an hour in total.

“The results are looking really promising at this stage,” Dr Hordacre says.

Following the success of the first Research Day and awards, a second event is scheduled for 2019 with plans to establish them on an ongoing basis.

The 2018 UniSA Research Award winners

RESEARCH EXCELLENCE CATEGORY
Early Career Researcher Award
Brenton Hordacre - School of Health Sciences
Stephanie Reuter Lange - School of Pharmacy and Medical Sciences

Mid Career Researcher Award
Krasimir Vasilev - School of Engineering

Leadership in Research Award
Emily Hilder - Future Industries Institute

TRAINING AND SUPPORT CATEGORY
Professional Support - Team Award
Australian National Fabrication Facility - SA Team
Simon Doe, Donghoon Chang, Jing-Hong (Mike) Pai, Mark Cherrill, Moein Kashani, Maryam Khaksar, Belinda Turner, Ragesh Nair

Professional Support - Individual Award
Julie White - School of Creative Industries
Kirsty Willis - School of Marketing

Supervisor of the Year Award
Jillian Dorrian - School of Psychology, Social Work & Social Policy

Transformed PhD Student of the Year Award
Tahnee Dening - School of Pharmacy and Medical Sciences

Ian Davey Research Thesis Prize Award
Jessica Wojciechowski - School of Pharmacy and Medical Sciences

PATHWAY TO IMPACT CATEGORY
Interdisciplinary Award
Smart Control to Maximise Renewable Energy With Thermal Energy Storage
Alemu Alemu, Martin Belusko, Luigi Cirocco, Ming Liu, Peter Pudney, Frank Bruno, John Boland

Best RTIS Application Award
Re-sensitising Resistant Bacteria Against Antibiotics: Giving New Power to Failing Medicines
Clive Prestidge, Nicky Thomas, Allison Cowin, Zlatko Kopecki, David Oggunniyi

Partnership Award
Outstanding UniSA research recognised through new awards

Australian Centre for Child Protection - Fiona Arney and Leah Bromfield

**Commercialisation Award**
Stuart Pitson - Centre for Cancer Biology

**Policy Impact Award**
Australian Centre for Child Protection - Fiona Arney and Leah Bromfield

**IMAGES OF RESEARCH COMPETITION**

**People's Choice Award**
Moein Kashani - School of Engineering


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UniSA and France join forces to advance Industry of the Future

by Dan Lander

Brittany is the focus of a range of research collaborations between UniSA and institutions in the region.

UniSA is forging closer ties with Brittany in northwest France through four research projects and a new professorship between the University and French academic partners.

The Professor of Industry of the Future position will be the focus of a range of research collaborations between UniSA and institutions in the Brittany Region, including four new projects awarded funding this month under the State Government’s South Australia-Brittany Research.

Funded by UniSA and the Brittany Region, the joint professorship represents an opportunity to adapt European Industry 4.0 expertise to the Australian industrial landscape, while simultaneously strengthening Brittany-Australia relations and showcasing the Brittany region’s education and research capabilities.

Industry 4.0, which has been dubbed the ‘Fourth Industrial Revolution’, refers to the creation of ‘smart factories’ through the automation technologies such as cyber-physical systems, the Internet of Things and cognitive computing.

UniSA Vice Chancellor Professor David Lloyd says Industry 4.0 is a concept of critical importance to Australia
but there is a need to develop “far greater educational and research expertise in the field than currently exists in this country”.

“I am certain this initiative will be an important step in developing industry-focused research and educational cooperation between France and Australia,” Prof Lloyd says.

With French-Australian collaboration important to a broad range of industries, including maritime defence, the new Professor of Future Industry will spend half their year in Brittany with UniSA academic partners IMT Atlantique and the University of South Brittany, and half in Adelaide, fostering staff and student exchange and driving innovation interchange between industry and academia in both countries.

During a recent visit to France, Premier Steven Marshall announced a number of projects funded through the South Australia-Brittany Research Collaboration Grant.

The first of these projects, the Roadmap for a Human Factor and Human-System Integration Consortium, will be led by UniSA's Associate Professor Siobhan Banks, and seeks to create a collaborative approach to human factors research in the naval industry.

Prof Banks has fostered strong ties with Brittany over the past 18 months, and the consortium will take an existing project to the next stage, bringing together academics from UniSA, IMT Atlantique and the University of South Brittany with key figures from industry, including Naval Group.

In a second project, three UniSA researchers, led by Professor David Cropley, will travel to Brittany to expand an existing suite of teaching and research activities with the Paris-based Superior National School of Advanced Techniques (ENSTA) and IMT Atlantique.

This project aims to improve education around key skills in engineering and other STEM disciplines central to Industry 4.0, and will also seek to establish a PhD scholarship to support a student who will spend two years based at ENSTA and their middle year of study at UniSA.

Outside these Industry 4.0 projects, the South Australia-Brittany Research Collaboration Grant also awarded funding to two other UniSA initiatives that will expand existing relationships and establish new research opportunities.

Dr Moein Kashani, a fluidics simulation expert, will travel to Brittany in February 2019 to arrange a program of staff exchange and research collaboration between UniSA and Institute de Recherche Dupuy de Lôme at the University of South Brittany.

A further grant will facilitate a symposium at UniSA in January 2019, in which Rennes-based Cherry Biotech – a developer of health instrumentation with a strong R&D program – will discuss cutting-edge techniques in radiobiological and immunotherapy studies alongside researchers from UniSA and the Harvard University Dana Farber Cancer Institute.

Following this symposium, two UniSA researchers will visit the Cherry Biotech labs to assist in developing bioengineered organ-on-a-chip models for radiobiological studies.

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Management and Marketing of Wine Tourism Business. Theory, Practice, and Cases

It would seem that our love of wine tourism has now become a family affair, with increasing demand on wineries to cater to the niche of vino-sipping parents.

In *Management and Marketing of Wine Tourism Business*, UniSA’s Professor of Tourism Marianna Sigala analyses this new concept, along with other driving forces shaping and transforming wine tourism supply and demand.

Using case studies to illustrate the way local and international wine tourism is delivered to consumers, Prof Sigala explores new research streams in the rapidly-evolving ‘winescape’, and the implications for business.

"Wine tourism is no longer an activity strictly reserved for wine lovers wishing to enjoy a tasting, or for experts and the elite," Prof Sigala says.

“These days, wineries can see the benefits of catering to families, with child-friendly activities that mean parents are free to enjoy themselves and the kids are entertained.”

Providing good quality wine is not enough to succeed – as with all forms of tourism, related meaningful experiences are essential in attracting visitors.

“Wine tourism businesses need to offer experientially distinctive, memorable and transformational activities for customers, that allow and trigger people’s minds to rethink their connections with a place, its communities and even rethink themselves,” Prof Sigala says.

“This can be achieved by embedding cultural aspects about a wine, winemaking, viticulture, the ‘winescape’, the lifestyle of the locals, wine drinking habits and wine history into wine tourism experiences.”

One such example from the book relates to a Greek winery that revived an old grape variety from the region and successfully positioned its business, marketing and wine experiences around the history and cultural heritage of this ‘winescape’.

“The wine tourism industry has enormous potential as a complementary experience to many destinations and products – from a simple lunch time stopover on a road trip, to a venue for weddings and concerts.

“And of course, there are lots of new opportunities in the wine business for both mass and niche markets.

“This book explores some of the tactics available to help wine tourism firms better design their marketing and management strategies – not just survive, but to thrive.”

*Management and Marketing of Wine Tourism Business* also addresses recent innovations that are impacting wine tourism and the consumer market, including social media, responsible marketing and customer engagement, to enhance understanding of an ever-evolving industry.

By exploring a holistic mix of international and multidisciplinary perspectives, this book presents a comprehensive review of research into wine and its consumption, and the flow-on effects for wine tourism.

The book will help wine tourism businesses to design and enrich experiences to appeal to an increasingly diversified global market.

Published by Palgrave Macmillan, the book is available [online].
Research that shows excessive sitting is nowhere as dangerous as smoking; and that tai chi can reduce the risk of stroke; as well as the premiere of a new ballad opera inspired by World War I – these are some of the latest stories from UniSA’s Media Centre:

**Sitting is NOT the new smoking, contrary to popular myth**

Sitting is not the new smoking, despite what countless newspaper articles have peddled in recent years.

That’s the consensus from an international team of researchers who have laid to rest misleading claims comparing the health dangers of sitting for long periods with smoking cigarettes.

In the latest issue of the American Journal of Public Health, researchers from Canada, the US and Australia say that while research does suggest excessive sitting (roughly more than eight hours a day) increases the risk of premature death and some chronic diseases by 10-20 per cent, this pales in comparison to the risks associated with smoking.

**Stroke survivors and those at risk urged to focus on yoga and tai chi**

One of Australia’s biggest health issues could be checked if more people took up yoga or tai chi and reduced their blood pressure, an Australian study has found.

Stroke costs the country $5 billion a year through treatment and loss of productivity, affecting 56,000 Australians in 2017, equivalent to one stroke every nine minutes.

A paper published in Future Neurology by researchers from Monash University, UniSA and the University of Melbourne shows the impact that mindfulness-based interventions (MBIs) such as yoga and tai chi can have on reducing hypertension, fatty acids and blood sugar levels – all risk factors for stroke.

Researchers say both Eastern practices have the potential to mitigate stroke risk as well as help support stroke survivors.

**War graves and WWI trench violin inspire new ballad opera**

UniSA and Tutti Arts are collaborating to present the premiere of a new ballad opera, *Earshot* by director/writer Russell Fewster and composer Richard Chew.

*Earshot* is the story of a blind musician searching for the lost grave of her great grandfather on the WWI battlefields of the Somme.

Director, writer and lecturer in Performing Arts at UniSA, Dr Russell Fewster, says the opera dramatises contemporary Australian pilgrimage to the WWI cemeteries in France, using music and song as a means of healing the profound experience of finding the grave of a relative lost through war.
Highlights from the Media Centre


[Image 10x434 to 602x511]
[Image 59x606 to 213x693]
[Image 229x606 to 383x693]
[Image 106x737 to 112x744]

Bookings can be made at trybooking.com/YCDG.

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Invictus Games experience
2018 Alumni Awards

Invictus Games experience

More than 50 students across Physiotherapy, Podiatry, Exercise & Sport Science and Clinical Exercise Physiology experienced unique placement opportunities this year through the Invictus Games Pathway Program. Students supported wounded, injured and sick service personnel who aspired to compete in the 2018 Invictus Games, which were held in Sydney during October.

UniSA proudly joined forces with The Repat Foundation – The Road Home to support the physical, psychological and social wellbeing of returned service men and women through the program.
2018 Alumni Awards

Four distinguished members of UniSA’s global alumni community were honoured at the fourth University of South Australia Alumni Awards in late October.

Former politician and Ambassador to Italy, now prominent media commentator, Amanda Vanstone, and Singapore business entrepreneur James Tan, were among the alumni acknowledged during the awards, held at Pridham Hall.

A key event in the UniSA calendar, the awards showcase and acknowledge the outstanding global contribution of UniSA’s alumni community, which is now more than 215,000 strong.

Awards were also presented on the night to renowned virologist Dr Kirsten St George; and respected podiatrist, academic and leader in Aboriginal health, Dr James Charles, in recognition of their inspiring careers and contributions.

For more insight into each of the winners for 2018 visit the Alumni Awards website.
UniSA Chancellor Pauline Carr speaking (left) at the awards; and (right) with Adjunct Senior Research Fellow Dr Pamela Schulz OAM and UniSA council member John Hill.
2018 Alumni Award recipients (L-R) James Tan, Dr Kirsten St George, Amanda Vanstone and Dr James Charles.