

VOL.53, SUMMER 2024

Uniview

THE MAGAZINE OF THE UNIVERSITY OF WESTERN AUSTRALIA



THE UNIVERSITY OF
**WESTERN
AUSTRALIA**

Smart ideas

Message from the Editor

Welcome to our summer edition of Uniview where we explore some of the clever ways UWA researchers have tackled big issues with some very surprising solutions.

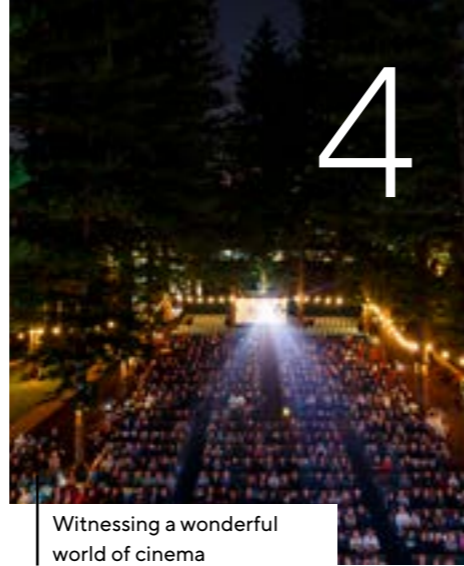
From simulating ocean environments through to high-speed diagnoses of antibiotic resistance, our researchers work hand-in-hand with industry partners to innovate and find relevant solutions.

Preserving our past is just as important, and in this edition, we explore our work with the State Library and Western Australian Museum to digitise archival stories. We also showcase some of the careful renovation of our well-loved campus facilities such as the Reid Library and the Somerville Auditorium.

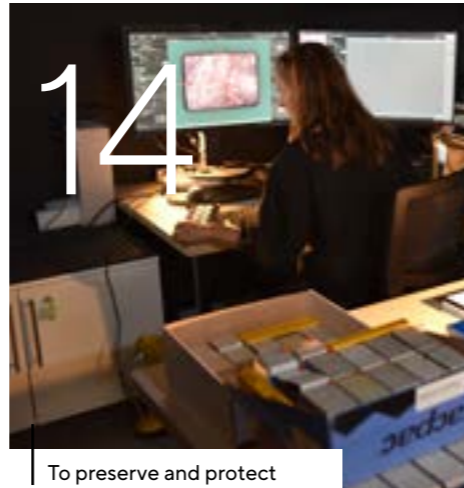
As always in our summer Uniview, we unveil highlights from the upcoming Perth Festival with the Lotterywest Films festival opening in late November.

I hope you enjoy reading about UWA's smart ideas.

Alison Batcheler
Associate Director, Corporate Communications



Witnessing a wonderful world of cinema



To preserve and protect



Reid revival

CONTENTS

03	From the Vice-Chancellery	30	Newsmaker
04	In Focus	36	Community Impact
06	Features	40	Future Thinker
24	Somerville Auditorium	42	In the Frame

The University of Western Australia acknowledges that its campuses are situated on Noongar land, and that Noongar people remain the spiritual and cultural custodians of their land, and continue to practise their values, languages, beliefs and knowledge.

Editor: Alison Batcheler
Uniview Sub-editor: Milka Bukilic
Editorial: Corporate Communications, The University of Western Australia, Perth, WA 6009
Telephone: +61 8 6488 4206
Design and print: UniPrint, The University of Western Australia
Email: uniview@uwa.edu.au

The University of Western Australia – UWA
 UWAnews
UWA website: uwa.edu.au/news



Material from *Uniview* may be reproduced if accompanied by an appropriate credit.



From the Vice-Chancellery

Professor Amit Chakma, Vice-Chancellor
The University of Western Australia

Creative solutions

UWA's world-class reputation has been built over many decades by generations of researchers who have worked across disciplines to find creative and innovative solutions to some of our biggest challenges.

In this edition of Uniview we share some smart ideas borne from our current generation at UWA, many of whom are working with industry partners. As Professor Scott Draper explains in our article about the Coastal and Offshore Research Lab, industry partnerships are vital as universities provide new and relevant research to answer industry's questions.

At UWA we nurture industry-research relationships from PhD industry internships, right through to supporting research start-up companies.

In this edition you can read about a particular company which is working on new ways to defeat antibiotic-resistant infections.

I invite you to learn how our researchers are developing smart solutions to complex issues facing our community through innovation and collaboration.

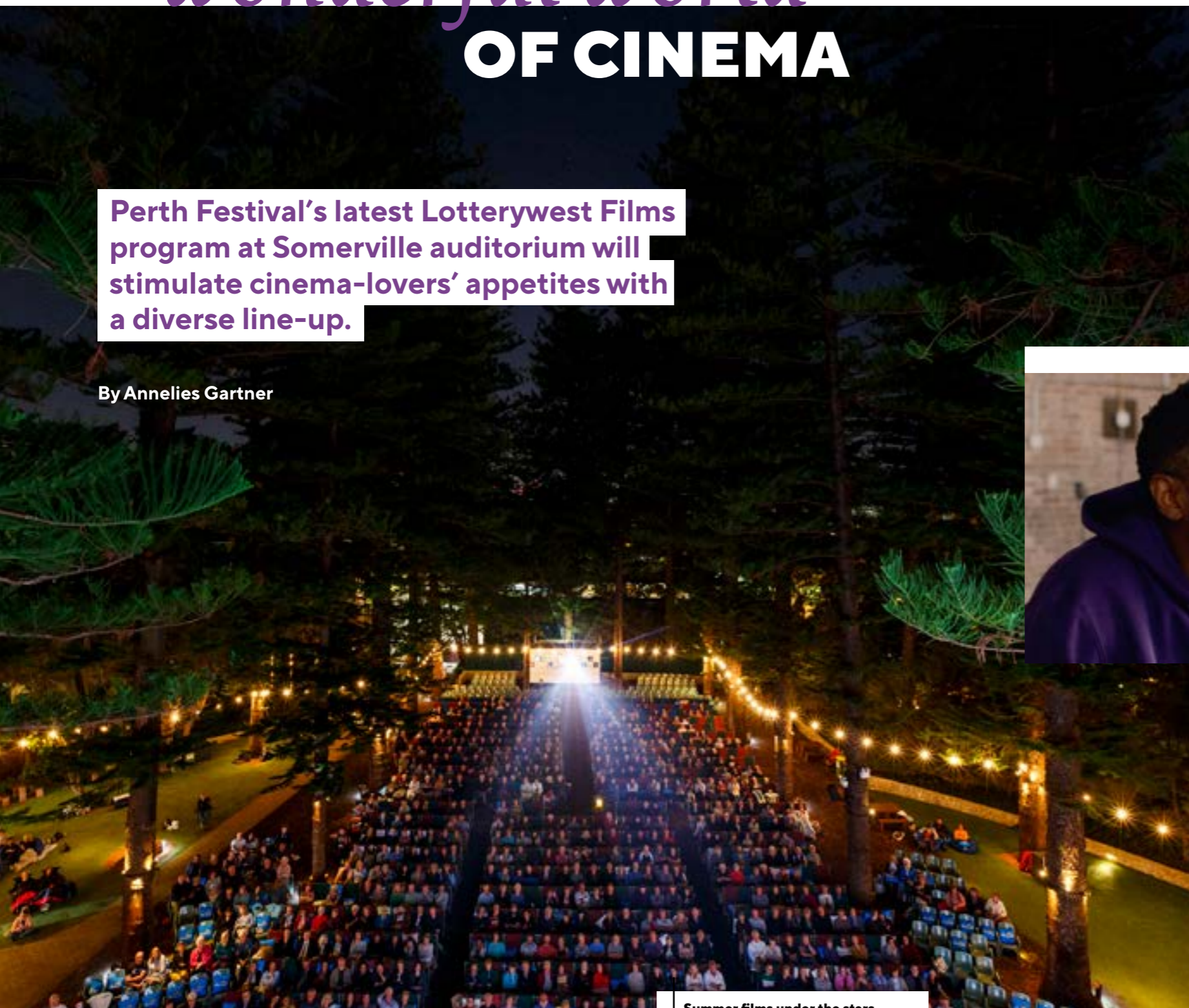
Professor Amit Chakma, Vice-Chancellor
The University of Western Australia

At the time of going to print, The University was deeply saddened to learn of the death of Emeritus Professor Alan Robson AO CitWA, who served as the University's Vice-Chancellor from 2004 to 2011. A dedicated tribute to honour Professor Robson's legacy to UWA, higher education, research and the community will be included in our next edition. uwa.edu.au/news/article/2024/october/vale-alan-robson

WITNESSING A wonderful world OF CINEMA

Perth Festival's latest Lotterywest Films program at Somerville auditorium will stimulate cinema-lovers' appetites with a diverse line-up.

By Annelies Gartner



Summer films under the stars
Image: Jess Wyld

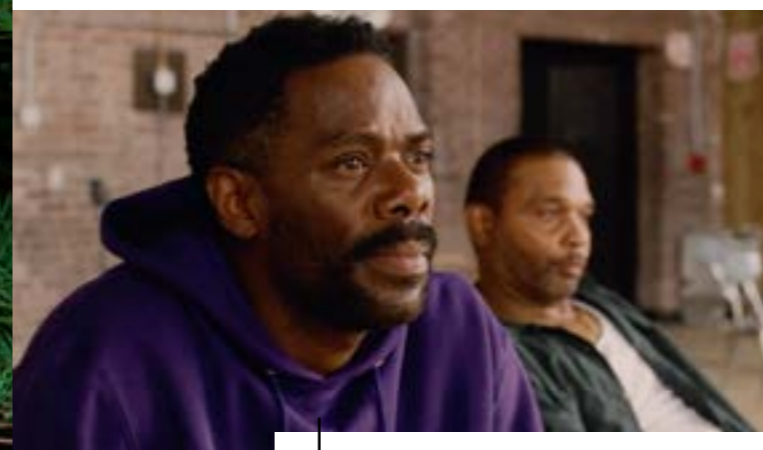
Audiences can enjoy balmy summer nights under the pine trees and watch world-class films from exciting new creatives and established filmmakers.

"One of the themes coming out of the program is witnessing – films about recent histories, personal histories and social histories that are really impactful," curator Madeline Bates explains.

The opening film *Didi* by director Sean Wang is his debut feature and the semi-autobiographical story of a young 13-year-old Chinese-American boy growing up in 2008.

"It's the early days of YouTube and he's using it to try to love and understand his mum better, as well as learning about first love," she says.

"It's very specific to the time period and the experience of being a second-generation immigrant trying to work out their identity but at the same time it feels very universal, very sweet and a bit naughty."



Colman Domingo and Clarence Maclin in *Sing Sing*

Thriller *Tatami*, which premiered at the Venice Film Festival last year and is co-directed by Iranian Zar Amir Ebrahimi and Israeli Guy Nattiv, is another film in this category.

"It's about a female judo player who is compromised by the Iranian government and asked not to participate in the World Judo Championships, for political reasons," Ms Bates says.



Madeline Bates Perth Festival curator

"It's inspired by real-life accounts of people who have their professional careers halted or stemmed because they've been put on a public stage and can't bring their coercive government into disrepute."

American indie film *Sing Sing*, directed by Greg Kwedar and starring Oscar-nominated actor Colman Domingo (*Rustin*), tells the story of a maximum-security prison arts rehabilitation program and also fits the theme.

"It's drawn from a lot of the experiences of the alumni of the program, many of whom are cast in the film," she says.

"It speaks of the importance and value of community creativity as a form of rehabilitation, but also as a form to help us get to know each other and ourselves better."

Fans of previous Somerville favourite *Lunana: A Yak in the Classroom* will be excited to know director Pawo Choyning Dorji's new film *The Monk and the Gun* will screen.

"It's about the birth of democracy in Bhutan and introducing the concept of a democratic voting system to the Bhutanese public," Ms Bates says.

"There are a number of general elections this year and a lot of people are grappling with what democracy is and the impact it has on people's lives. It's really interesting to see what happened in Bhutan and how in many ways it's a mixed blessing."

Director Michel Hazanavicius (*The Artist*) also has a new film in the program that has been adapted from a graphic novel.

"*The Most Precious of Cargoes* is set around WWII and it's a fable in the style of European fairy tales," she says.

"A woodcutter and his wife find an abandoned baby in the forest, and it explores themes of prejudice and discrimination in really beautiful, hand-drawn animation."

This year the Festival is partnering with Luna Cinema to bring more animation and children-led documentaries to audiences, with a children's cinema program to run during the January school holidays.

"We're hoping to bring some fantastic international animation to Perth that will delight the next generation of cinema-lovers, from festivals like Annecy animation festival, which is an acclaimed animation festival held in France each year," she says. ■

More information at www.perthfestival.com.au

THE SHAPE OF THINGS TO COME



A state-of-the-art ocean simulator is riding a growing wave of interest from groups seeking to innovate in the blue economy.

By Carrie Cox

Professor Scott Draper and Professor Ryan Lowe



Members of the CORL team at the lab's official launch event

A unique UWA research laboratory that can simulate conditions in oceanic and coastal environments with precision has industry knocking on its door for solutions to new questions arising out of the blue economy.

The Coastal and Offshore Research Lab (CORL), which occupies an area roughly the size of a footy pitch in Shenton Park, is the only facility of its type in Australia that can simultaneously support both coastal and offshore engineering research from the surface to the seabed and from deep to shallow water.

Since the addition of an Olympic-pool-length wave flume in 2021, CORL has become a go-to facility for innovators and organisations wanting evidence-based data and guidelines to support the design of bespoke projects and major blue economy initiatives.

“Our research with diverse marine industries has been growing significantly in recent years due to Australia’s dependency on the ocean and the need to advance innovative approaches to address societal challenges,” says Professor Ryan Lowe, whose expertise is focused on developing novel solutions to protect coastlines and infrastructure from coastal hazards.

“Since 2021, the lab has enabled almost 100 research projects – about 30 a year – across the areas of renewable energy, offshore technology, coastal infrastructure design and coastal protection projects. Industry is coming to us with very specific questions and wanting very specific solutions.”

Professor Lowe’s research colleague Professor Scott Draper, an expert in solving fluid mechanics problems relevant to ocean energy applications, says the lab has brought together fields of knowledge in a way that wasn’t previously possible.

It's great to see the University providing industry with new and relevant research, which is being matched by industry providing new questions and challenges – it's a nice circle.

"UWA has always had a strong reputation in offshore and coastal research, but this lab has brought these fields together and enabled more collaborative work, both within UWA and with collaborators across the State," Professor Draper says.

"The lab itself is critical because marine environments are incredibly complicated and you can't just numerically model them; you need to conduct physical experiments to understand the physics involved."

Game-changing research infrastructure in one location

Key components of the UWA Coastal and Offshore Engineering Lab include:

Large O-tube. This 24-metre circular flume, through which water is rapidly circulated, simulates underwater wave and current conditions close to the seabed. It is being used to revolutionise research on sediment transport, to design subsea structures and to assess the stability of power cables connected to wind turbines and other offshore infrastructure.

Wave Flume. The unique construction of this 54-metre flume uses two types of wave-generation paddles in order to accurately simulate both coastal and offshore wave environments.



Associate Professor Scott Draper presents at a Defence Capability Showcase event held at CORL

Coastal protection initiatives

Roughly half of the lab's core activity today is focused on supporting new approaches for coastal protection, with a particular focus on the use of more environmentally friendly, nature-based alternatives to conventional structures such as seawalls and breakwaters.

"For example, one of our current projects is looking at whether the co-location of large kelp farms can remove wave energy and therefore potentially protect inshore coastal infrastructure from storm hazards," explains Professor Lowe.

"And we're also working with US Defence to look at the design of natural, self-sustaining reef structures that can grow over time and protect critical defence and civilian infrastructure located on coastlines.

"With climate change accelerating sea level rises and increasing the severity of storms, coastal populations and critical infrastructure are increasingly at risk worldwide. One goal of our research is to reduce uncertainty about the effectiveness of new nature-based alternatives to traditional grey infrastructure and to promote greater uptake by coastal engineers and planners."

Renewable energy projects

Start-ups and organisations in the renewable energy sector are increasingly looking to CORL to conduct experiments that complement field measurements and inform future decision-making.

While WA is yet to have an operating offshore windfarm, the State's R&D is powering many of them located around the world.

"Academics and industry here in WA are already engaged in global offshore wind projects," says Professor Draper, "so as a State

we're helping to support this growing industry even though we don't yet have turbines here.

"Through geotechnics, cable design, hydrodynamics and other key areas, UWA research is helping to inform the design of global windfarms, building on existing knowledge combined with new innovative research in facilities including CORL.

"It's great to see the University providing industry with new and relevant research, which is being matched by industry providing new questions and challenges – it's a nice circle."



UWA wave buoy

At the heart of the often complex relationship between academia and industry in Australia is an incontrovertible sweet spot: the PhD.

By Carrie Cox

WHAT THE DOCTORATE ORDERED:

programs link industry with PhD candidates

Just as a doctorate requires the production of original and significant research, Australian industry is thirsty for cutting-edge innovation that doesn't come off a shelf.

It's no surprise, then, that the Australian Government is finally dedicating meaningful funds and resources to industry PhD programs and research internships – the sorts of programs that have seen countries such as France and Denmark race ahead research commercialisation.

About 10,000 PhDs are completed in Australia each year and while not all of them can address the world's burning questions or cure the incurable, a great many of them do. It's far too easy to underestimate just

how many big ideas we're actually sitting on at any one time.

"Historically as a nation, we're very good at research but not so good at turning it into practical applications," says Dr Agi Gedeon, UWA's higher degree by research (HDR) partnerships manager.

"But the Government is now clearly committed to driving a stronger nexus between research, innovation, the economy, and the commercialisation of good ideas.

"And because PhDs produce novel research, there are some wonderful opportunities for either commercialising that research or testing it in industry settings, as well as actually having the University and industry co-design research projects from the get-go."



Dika Sembiring at the historic Château de la Muette in Paris, where the OECD headquarters is located

The win-win of PhDs engaged with industry

While there are many types of industry engagement and PhD internships now available through Australian universities, common to all is the win-win imperative.

"For students, an industry internship is a great opportunity not only for their future employability but also for the future application of their research, while for industry there is an injection of fresh ideas and innovation and no risk to their intellectual property," Dr Gedeon explains.

There are many examples of this. UWA engineering PhD candidate Zhanh He, who specialises in automatic music transcription, spent four months this year with Dolby Australia through APR.Intern working on a project aiming to convert music audio into readable notation, making transcription more practical for musicians.

Similarly, UWA physics PhD student Hwei Lo, who is passionate about applying physics to health, interned with North Metro Health Service and Neurospheric through iPREP. Under Dr Hari Ramakonar's mentorship at Sir Charles Gairdner Hospital, she contributed to developing a medical imaging device for guiding neurosurgeons during brain tumour extractions. Both students describe their experiences as highly positive.

Sam Withers, PhD candidate

“Before this internship, I had only ever studied terrestrial geology, but over the program, I learned a lot about planetary science and lunar geology,” Ms Boyce says. »



Matilda Boyce
in the lunar lab at NASA

Dika Sembiring, another PhD candidate at the University, made history as the first Indonesian to join the OECD’s Centre for Tax Policy and Administration in Paris, marking a significant milestone during his research internship.

Specialising in tax law, Mr Sembiring was able to bring a unique blend of cultural and academic perspective to his role.

“Collaborating with top-tier experts and engaging in global discussions on tax crime legislation was incredibly rewarding,” he says.

“It broadened my understanding of how different countries approach tax crime prevention, enriching my experience in international tax law.”

Reaching for the stars

UWA earth sciences PhD student Matilda Boyce, who is investigating the early evolution of the Earth through the formation of ancient magmatic rocks, took up an internship opportunity last year at the Lunar and Planetary Institute in Houston, Texas. She said the experience provided a uniquely fresh perspective on her study.

“Before this internship, I had only ever studied terrestrial geology, but over the program, I learned a lot about planetary science and lunar geology,” Ms Boyce says.

“The research was incredibly interesting and is a field I would love to continue working in the future. My experience shows that an internship doesn’t have to align

perfectly with your own research work – it can open your eyes and expose you to experiences you wouldn’t have had otherwise.”

‘PhD internships have played a critical role in our company’

WA scientist and innovator Dr Michael Challenor has taken on almost 30 PhD students as interns since launching his med-tech start-up VitalTrace in 2018. An Honorary Research Fellow at UWA, he completed an internship at the completion of his own PhD in 2016 and is a firm believer in the mutual benefits possible for both researchers and industry.

“For PhD students, an industry internship puts you well ahead of the pack when it comes to securing employment after your research is complete,” Dr Challenor says.

“It means you’re already a known quantity to an organisation and it’s significant that my own start-up has ended up employing about a third of the PhD students we’ve interned.

“For industry, you’re gaining these

young, curious minds who are excited to be trying something new, to get a foot in the door and get a taste of life beyond study. And the paperwork is largely taken care of – just a straightforward contract, no payroll, just an invoice at the end. There’s no IP risk for companies and from an R&D tax perspective it’s completely rebatable so it really makes sense.

“But most importantly, I can attest that my experience is that PhD internships have played a critical role in the evolution and growth of our company, which now has 45 staff and has raised more than \$24 million in grants and investment.”

From industry to PhD

Since March 2023 the Federal Government’s National Industry PhD Program has opened twice a year for applications in two key streams: industry-linked PhDs (in which outstanding PhD candidates undertake research projects co-designed by university and industry) and industry researcher PhDs (in which employed industry professionals are supported by their employers to undertake PhD projects in partnership with a university).

One of the first recipients of the latter funding stream was lead mechatronic engineer Sam Withers, who is completing a PhD at UWA while employed at ArthroLase.

In collaboration with Associate Professor Nathan Pavlos from the School of Biomedical Sciences, Mr Withers is working on a PhD project that tightly knits with his day-job focus to re-engineer the way knee replacements are done using laser technology.

“We’re developing a new approach to bone preparation for knee replacements,” Mr Withers explains.

“There’s a lot of demand for this innovation to come down the pipeline and become part of clinical practice. It promises far greater precision and opens up new implant designs.

“Doing a PhD while also working can be demanding at times, but there are a lot of beneficial overlaps and it’s already opened up opportunities for me that wouldn’t have happened otherwise.”

The CSIRO Industry PhD (iPhD) program also engages PhD students in industry-led projects. Henry Purbrick, a second-year candidate in this program, is collaborating with his industry partner to profile drug receptor pharmacology, gaining valuable insights into research commercialisation. The program provides skills training and access to scientists and research facilities in the national science agency.

Unlock innovation with industry-engaged PhDs

UWA can partner on programs to support companies that want to elevate their team’s expertise by upskilling their staff with a PhD, or through collaborative industry-led PhDs, or by hosting PhD students for impactful short-term R&D projects. ■

To discover how an industry-connected PhD can open doors to innovation and make a tangible impact on society and the economy, email internships-grs@uwa.edu.au



Dr Agi Gedeon

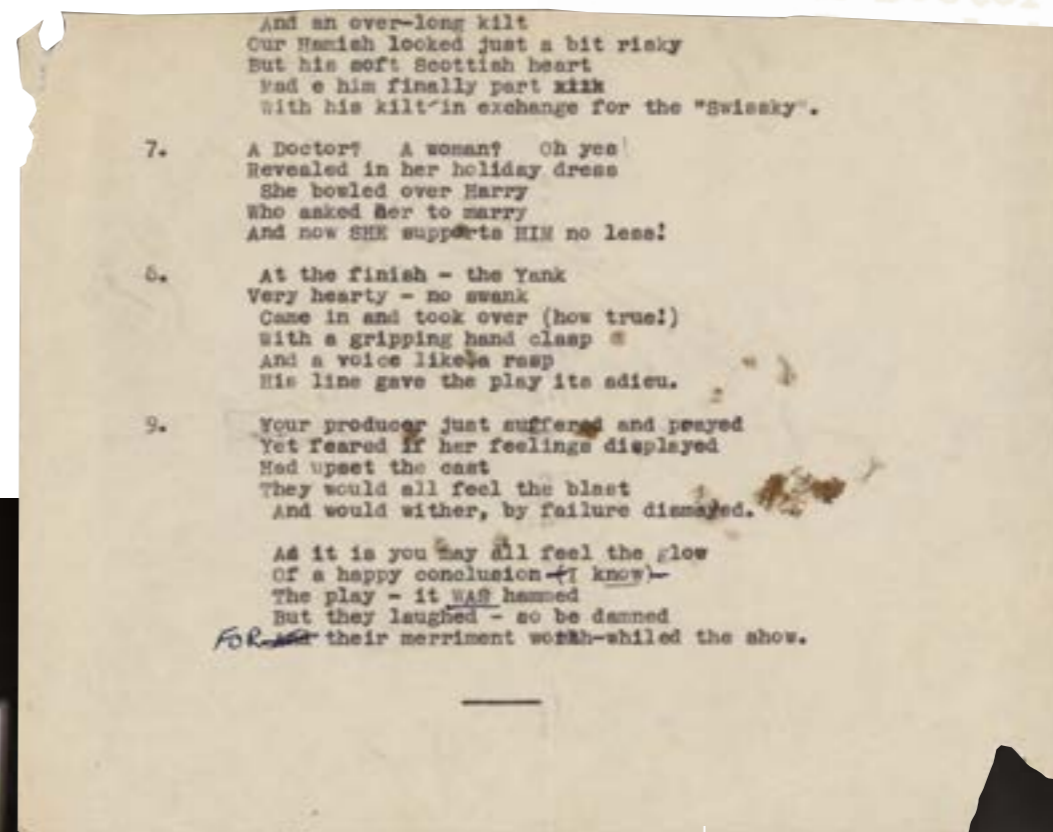
Just two years in its operation, this multi-university digitisation project is rapidly producing new insights into WA's history.

TO PRESERVE AND PROTECT

By Carrie Cox



A scanning station at the Digitisation Centre of WA



An archive from the Munjarra ballet collection. Munjarra was the first Indigenous-themed ballet in WA

A bold collaborative project to start digitising – and in many cases uncovering – significant archival material housed in various collections across WA is already resulting in new research outcomes not previously explored.

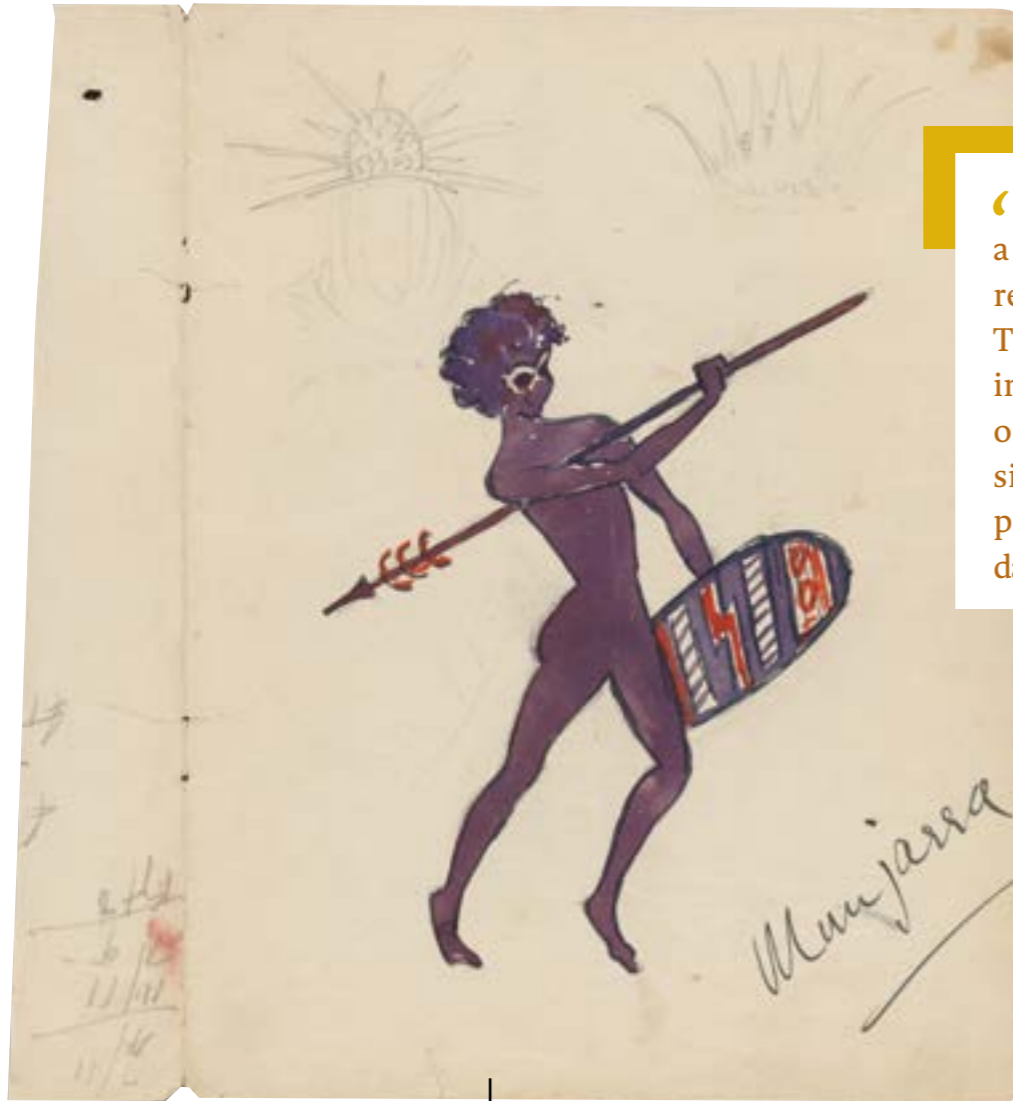
The Digitisation Centre of WA, a joint venture between all five WA universities, the State Library of Western Australia and the Western Australian Museum, was launched in 2022 on the back of a Linkage grant from the Australian Research Council (ARC) and in-kind funding from the project partners.

Early research outputs have included a collaborative unearthing of the story of Moon Chow, believed to be the first Chinese immigrant to WA, as well as a contextual analysis of a large collection of crayon drawings done by Aboriginal men living at Birrundudu in 1945.

The Moon Chow project won the researchers a subsequent grant to do further research into Chinese-West Australian history – an example of the potential kick-on effects of digitisation-powered research.

Digitisation Centre of WA Chair Professor Benjamin Smith, who is also a Professor of Archaeology (World Rock Art) at UWA, says the centre is already demonstrating the immeasurable value of investing in world-class archival standard digitisation.

“This is creating new potential to generate all sorts of new research and international collaborations,” Professor Smith says. “Every day it seems there is something surprising or unique brought to the centre.”



An original hand-drawn costume design for the ballet *Munjarra*, performed in 1956 at His Majesty's Theatre

“ We have started digitising a collection of almost 20,000 records held by His Majesty's Theatre – basically stored in a dungeon in the middle of Perth. There is every single poster and catalogue produced by the theatre since day one. It's quite incredible. ”

“For example, we have started digitising a collection of almost 20,000 records held by His Majesty's Theatre – basically stored in a dungeon in the middle of Perth. There is every single poster and catalogue produced by the theatre since day one. It's quite incredible.”

While the digitisation lab itself is co-operated by all the project partners, each university has its own discovery platform to access its collections. UWA's platform – known as UWA Collected – provides access to such collections as the Callaway Centre, a vast and historically significant body of music history archives, the Australian Performing Arts Collection, and a large series of rare and preserved maps.

Professor Smith, who previously ran a digitisation centre in Africa, says while WA was comparatively slow to start digitising its historical remnants, the delay has worked in its favour.

“A lot of the early labs established in Europe didn't do it to a high enough quality and they've now had to redigitise,” he says.

“The technology now is of the highest preservation standard – the resolution wars are over – and so here in WA we are using the very best equipment there is.

“We liaised with the New York Public Library, which has one of the largest digitisation centres in the world, and ended up using their system and were the first in Australia to do so.”



Professor Benjamin Smith

Another unique aspect of the Digitisation Centre of WA is the nexus created between librarians and academics, Professor Smith explained.

“It's rare for researchers to work with librarians in this way.

“Normally the library is just a service platform for researchers, but the librarians within our centre are absolutely critical to the centre's operations because they essentially control the discovery platform.”

It will take decades to digitise the records of a state so rich in historical archives, so early prioritisation is being given to the under-funded area of humanities, arts and social science research. After that, collections in STEM, botany and other research areas will be digitised.

Professor Smith says one of the biggest challenges for a state like WA is the fact so many important collections are locked up in regional and remote areas, housed by groups and organisations that simply don't have the money to digitise.

“This is something we're trying to overcome,” he says.

“For example, I collaborated with Murdoch University and Edith Cowan University to obtain an ARC Linkage grant to digitise all the collections in the State's Aboriginal language centres because they're increasingly under threat.” ■



Paper archives being scanned at the Digitisation Centre of WA



Dr Kieran Mulroney

Winning the RACE against time

By Carrie Cox

UWA research that fast-tracks the diagnosis of antibiotic-resistant infections is well on its way to being world-ready.



More than 1.29 million people globally die each year from infections that don't readily respond to antibiotics. Another 4.5 million will die indirectly from conditions caused by antibiotic-resistant infections.

As the first-time father of a newborn, Dr Kieran Mulroney may well have had no better preparation for the trials of parenthood than his ongoing journey to commercialise a lifesaving medical discovery.

The UWA Forrest Prospect Fellow, together with research colleagues from the UWA Medical School and the Harry Perkins Institute of Medical Research, first published their discovery – breakthrough technology that can rapidly diagnose antibiotic resistance – in 2017.

But despite the tremendous significance of those findings – identifying resistance within hours instead of days may save more than 900,000 lives each year – the team quickly learned that, much like parenthood, giving birth to a miracle is only the beginning.

“Naively, you think you make a discovery, you patent it, and the big companies will come knocking, but of course that’s not what happens,” Dr Mulroney says.

“If you want to get that benefit out into the world, you not only have to do the scientific development work, but you also need to do the commercial development work to prove that your tech is amazing and worth putting money behind.

Because the simple fact is, if no one wants to pay for it, it simply won't happen.”

Fortunately, the wheels are now turning for Cytophenix, the name Dr Mulroney and his team have given to their baby. In May 2023, national biotechnology incubator CUREator awarded a \$500,000 commercialisation accelerator grant to Cytophenix to help bring the technology to clinical use.

CUREator is one of several new funding pathway initiatives designed to turn around Australia's record of research commercialisation, which until very recently was one of the worst in the developed world.

Dr Mulroney says the grant was a major milestone for Cytophenix.

“As a scientist, this discovery has been exciting, but to see it translated for the benefit of patients, hopefully within the next three years – that will be deeply rewarding,” he says.

“Because personally, I didn't get into research to make discoveries that no-one knows about. For me it was always about making an impact and doing things that help people.”

Beating the bugs

More than 1.29 million people globally die each year from infections that don't readily respond to antibiotics. Another 4.5 million will die indirectly from conditions caused by antibiotic-resistant infections.

It's a calamitous public health problem that is worsening rapidly due to our overuse of antibiotics, not only in medicine but also industry, and current estimates are that 200 million deaths will result from antibiotic-resistant infections by 2050.

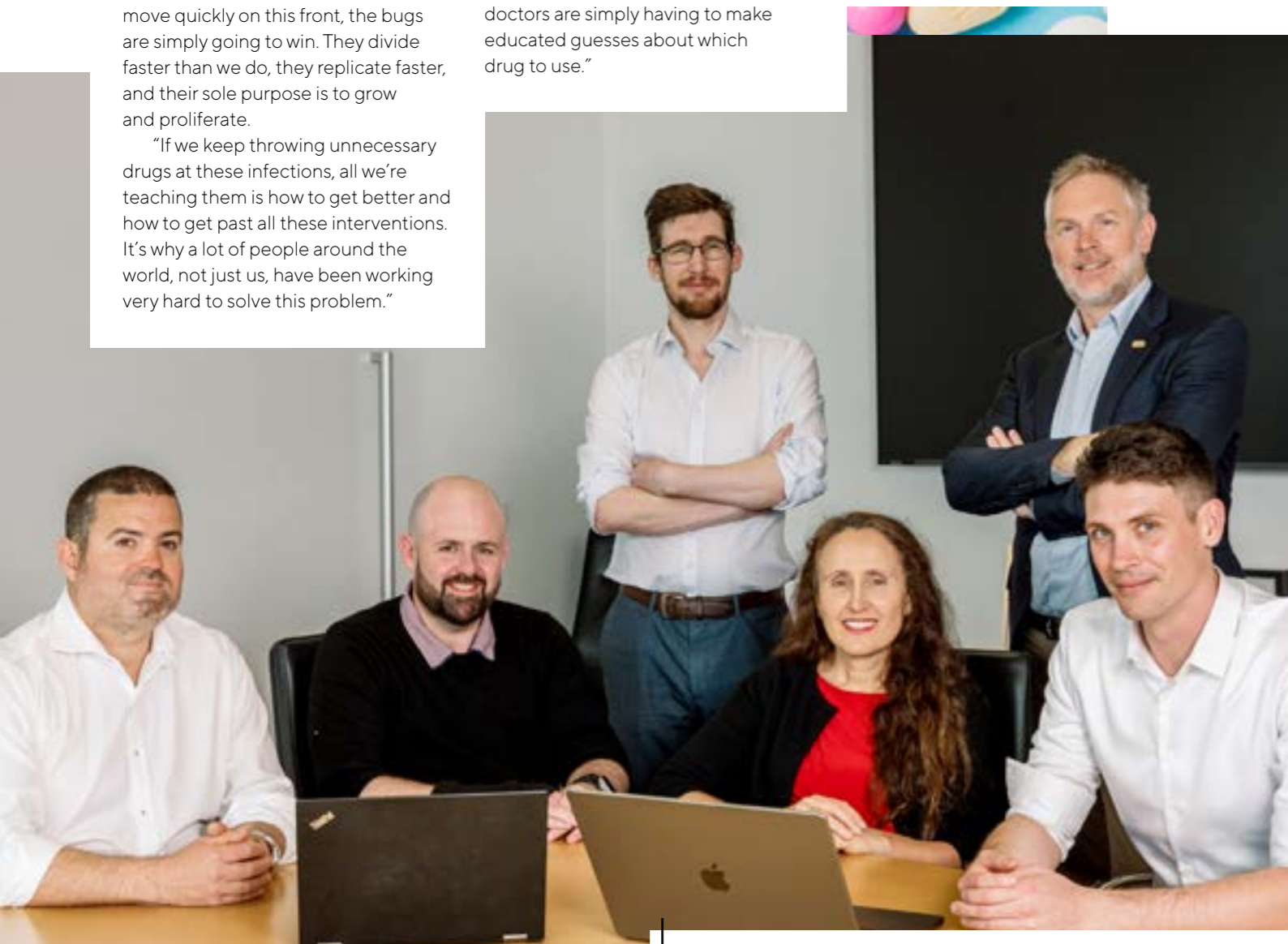
"Based on current projections, infection will begin to cause more deaths than any other cause," Dr Mulrone says. "So if we don't move quickly on this front, the bugs are simply going to win. They divide faster than we do, they replicate faster, and their sole purpose is to grow and proliferate.

"If we keep throwing unnecessary drugs at these infections, all we're teaching them is how to get better and how to get past all these interventions. It's why a lot of people around the world, not just us, have been working very hard to solve this problem."

The hurdle common to every research team working in this space is time. For every hour that a patient doesn't receive an effective antibiotic for their specific infection, their risk of death increases by 6.7 per cent – yet current testing procedures take two to five days.

"With life-threatening infections, basically, if you don't get the right drug within two days, it's almost guaranteed there is nothing that can be done," Dr Mulrone says. "Getting the right drug early can be the difference between life and death or very serious complications like amputations.

"At the moment, due to the time it takes to isolate infecting bacteria, doctors are simply having to make educated guesses about which drug to use."



L-R: Sherief Khorshid, Kieran Mulrone, Teagan Paton (back), Christine Carson, Mike Clark and Russell Nicholls (back)

Testing times

When it comes to defeating antibiotic-resistant infections, there is no question of circumventing the testing process – there is only the hope of making it quicker. That's what Dr Mulrone and his colleagues have been able to do with patented technology they've fittingly labelled 'FAST'.

"Antibiotics are like the fire extinguishers of modern medicine – if a fire takes hold and spreads, it becomes very hard to control, whereas if you get in early with a fire extinguisher, there will still be damage done but you can stop the spread and give time for everything else to get back under control," Dr Mulrone explains.

"What happens at the moment when a patient presents with an infection is that a sample is sent to pathology and you then try to grow the micro-organisms in that sample so that you've got enough of them to work with to run tests," Dr Mulrone explains.

"That can take anywhere from two to five days to get a result.

"But instead of waiting for the organisms to grow, we're using a piece of high-end research equipment that measures hundreds of thousands of the individual bacteria in seconds. Then, using our AI-driven FAST technology, we can detect the damage that antibiotics will cause to those bacteria and use this information to confirm which antibiotic will be an effective treatment."

FAST (which stands for 'Flow cytometry-assisted Antimicrobial Susceptibility Test') was developed in affiliation with PathWest Laboratory Medicine WA and the WA Country Health Service. The research was done in partnership with the WA Department of Health through Sir Charles Gairdner and Osborne Park Health Care hospitals, and is also supported by the National Health and Medical Research Council.



Dr Kieran Mulrone and baby Ronan

"FAST is a rapid and accurate test that returns answers on the best antibiotic to prescribe in just three to five hours," Dr Mulrone explains.

"And it's a 'one-principle-fits-all' platform, meaning it can essentially be used on all combinations of bacteria, fungi and the antibiotics that treat them.

"Across more than 26,000 individual test results from clinical samples, FAST has demonstrated the levels of real-world accuracy and precision required by regulatory agencies for clinical use. We can predict which antibiotics will be effective to treat that infection with 96.9 per cent accuracy."

Towards the finish line

While movement in this highly competitive research area is still largely dependent on the whims of market forces and the priorities of potential investors, Dr Mulrone feels confident that Cytophenix is a stand-out proposition.

"If you look at sepsis alone in Australia, there are about 55,000 cases each year," he says.

"So if you were able to shave just one day off each one of those

cases using this tech, that could save \$180 million a year for the Federal Government in terms of the health care costs for those patients.

"There are also the potential benefits in taking the tech out to rural and regional areas where these sorts of infection cases would normally be redirected to city hospitals. Obviously there are huge benefits to people being able to stay in their own communities or on country for their care."

Like any devoted parent, Dr Mulrone is ready to stay the course. ■

Primary authors on the research findings (2017 and 2021) include Dr Kieran Mulrone, Associate Professor Tim Inglis, Associate Professor Aron Chakera and Dr Christine Carson.

Cytophenix is a partnership between the researchers, UWA and AI firm Three Springs Technology. CUREator is funded by the Federal Government via the CSIRO and administered by Brandon BioCatalyst. FAST is still in research use and not yet registered on the Australian Register of Therapeutic Goods.

THE WAY OF water

By Annelies Gartner



Associate Professor Nik Callow



Associate Professor Nik Callow on a field trip with researchers

“Farming in WA is a great story of innovation, the way they have changed how we grow food and fibre to work with our climate and soils.”

Western Australia is experiencing more long, hot and dry summers that affect rainfall quantity, intensity and distribution, and rural communities are bearing the brunt of the impact.

Increasingly and at a high cost, water needs to be transported to the regions during dry years to help tackle bushfires and provide water for livestock and spraying weeds, as well as other farming operations.

In 2022, to address the challenges of water security in the South West of WA the WaterSmart Dams project was announced.

The project is a collaboration between The University of Western Australia, the Department of Primary Industries and Regional Development, and groups of motivated growers in regional towns and the Grower Group Alliance, which leads the South West Western Australian Drought and Innovation Hub.

Associate Professor Nik Callow, from the School of Agriculture and Environment and co-director of the Centre for Water and Spatial Science, is leading the project’s research and development.

“UWA is playing an important role by doing the science and being the broker of quality knowledge, but the other critical component is motivated and early-adopter growers who are keen to trial and implement the science,” Associate Professor Callow says.

The project builds on the WaterSmart Farms program which was initiated in 2021 and aims to develop knowledge and water planning tools for farmers in an agricultural area between Geraldton to Esperance.

“Farming in WA is a great story of innovation, the way they have changed how we grow food and fibre to work with our climate and soils,” Associate Professor Callow says.

“We’ve done really good work on improving cropping systems, we’ve been very clever in genetics and

farming systems including world-leading agricultural research at UWA.

“Unfortunately for the past 20 to 40 years we’ve forgotten about the research and development smarts around water.”

Outlining the challenges, Associate Professor Callow says many of the 180,000 farms dams in WA’s South West were built in the 1960s and 70s, and since then rainfall and farming systems have changed a lot.

“Farming properties have become a lot bigger, and some have 40 to 60 dams that are all the same size. No-till farming systems create poor catchments, meaning dams run out of water at the same time,” he explains.

“We’re looking at growers who are building large key dams, where they enlarge an existing dam to make it a lot bigger and combine this with a very-high performing catchment to give a water supply that can get you through the challenging years.”

The approach to improve water security has been two-fold with the team working to increase the catchment when there is rainfall and

then suppress evaporation from the dams.

“We’re looking at methods to increase run-off by using repurposed tarpaulins, so instead of needing a rainfall of 10-to-20 millimetres you only need one-millimetre of rainfall; this is a game-changer for water reliability,” he explains.

“One example of keeping the captured water, has been work with the Water Corporation evaluating methods such as floating tessellated covers to reduce evaporation.”

Demonstration sites, building farm-based water planning tools, workshops, field days and industry training have helped drive change and adoption at the grass roots level.

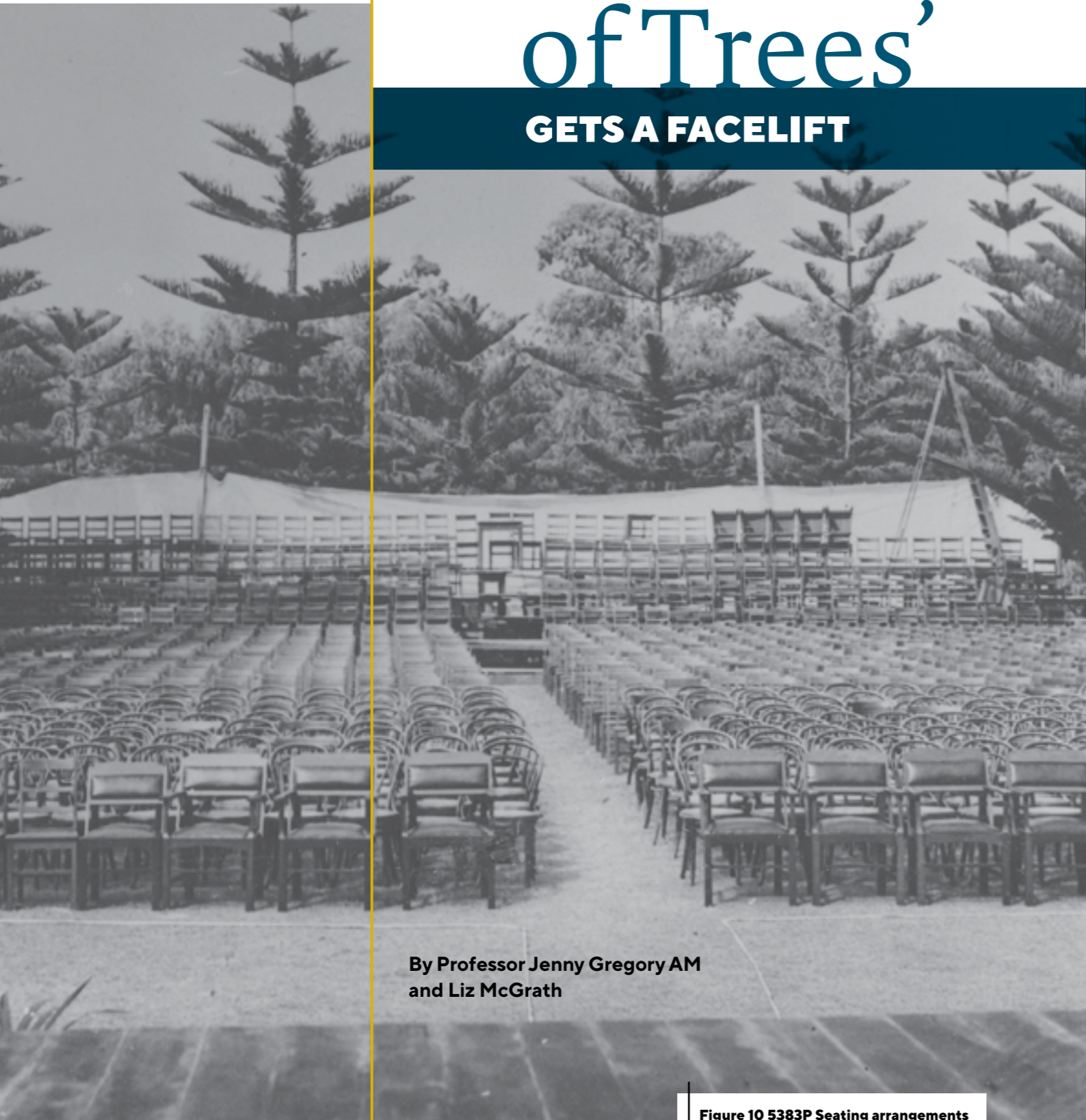
“Our research and solutions are making a real impact, delivering options so people are not running out of water during a drought,” Associate Professor Callow says.

“Water can become very valuable and expensive during dry times, so adopting new water security methods has the potential to create a resilient and climate-adapted farm business.”

UWA'S BELOVED

'Cathedral of Trees'

GETS A FACELIFT



By Professor Jenny Gregory AM
and Liz McGrath



Figure 1 2060P
William Somerville
- 1926 (002)

Nestled within the picturesque grounds of UWA, the Somerville Auditorium – affectionately dubbed the ‘Cathedral of Trees’ – has stood for nearly 80 years as a tribute to both nature and the visionary spirit of its namesake, William Somerville.

For generations, the unique open-air venue has enchanted Western Australians and visitors alike, providing a backdrop for film screenings, concerts and community gatherings beneath a majestic canopy of Norfolk Island pine trees.

This year’s attendees will notice an impressive facelift, including a new durable ground surface cover with drainage system, paving works and artificial turf installed, under the guidance of UWA’s Manager Asset Maintenance, Mick Wright.

“The upgrades were driven by multiple infrastructure challenges which included our trees being impacted due to inadequate water reaching their root systems, ineffective drainage and reticulation, and poor accessibility that prevented grass from growing in certain areas,” Mr Wright says.

“The auditorium’s electrical systems were also difficult to access, and heavy vehicle traffic had negatively impacted the roots of nearby trees, which is why it was decided a comprehensive refurbishment was needed.”

This year’s attendees will notice an impressive facelift, with a new durable ground surface cover with drainage system, paving works and artificial turf installed...

The result, he says, is a revitalised space that not only looks fantastic but will enhance the overall experience for all visitors.

Reflecting on the auditorium’s rich history, UWA Emeritus Professor of History Jenny Gregory says it was 1927 when Mr Somerville, a foundation member of the UWA Senate and Chair of the Grounds Committee, imagined a space where trees would form the pillars of a great hall.

Seeds of imagination

“Mr Somerville, who moved to WA from New South Wales in 1895, served as the workers’ representative on the WA Arbitration Court for 21 years from 1905,” Professor Gregory says.

“In this role, he travelled extensively through the forests of the South West, engaging with timber workers. He was deeply concerned about the human impact on the environment, particularly on trees.

“A plain-speaking man who avoided embellishment, he described ‘the beauty of the natural aisles’ in the forest as ‘breathtaking’.”

Professor Gregory says the first document in the Somerville Papers, a thick file of typed and handwritten documents and plans held in the UWA Archives that chart Somerville’s ideas and their progress, is Charles Lane-Poole’s 1926 report on the Forests of Norfolk Island.

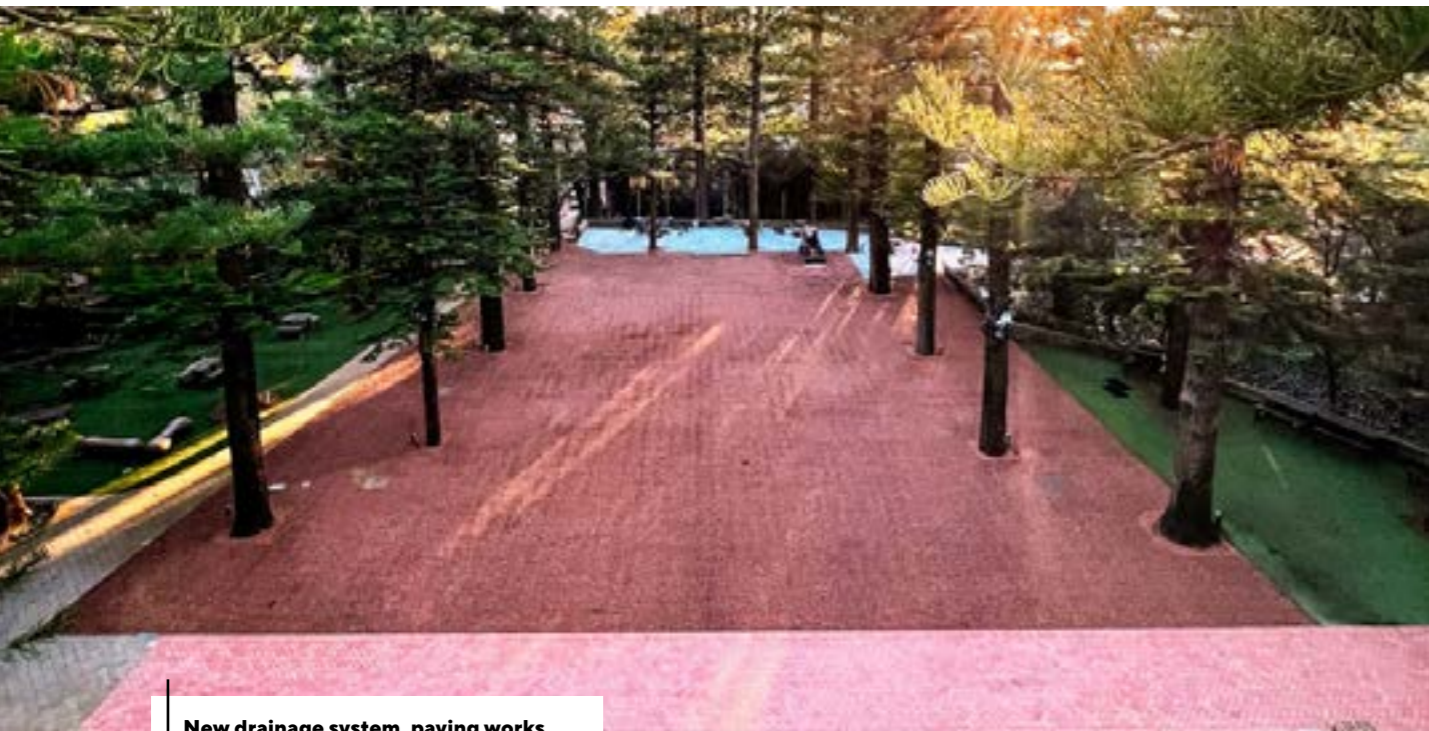
“Having heard that Mr Lane-Poole, formerly Conservator of Forests in Western Australia, had prepared the report, Mr Somerville wrote asking for details, saying ‘I have had a brain wave – a Ceremonial Hall’ with Norfolk Island Pines as the ‘Pillars’ and canopy ‘of a Great Hall’,” Professor Gregory says.

“Inspired by the forests of the South West, he wanted to create a natural amphitheatre where the top branches of the trees would intertwine, offering shelter.

“Mr Lane-Poole, referring to the idea as ‘a living cathedral’, wrote straight back telling him the trees needed to be planted 30 feet apart and sent a small packet of seeds to help begin the scheme.

“Mr Somerville responded ‘If any other tree occurs to you, please don’t barrack for any other – I have set my mind upon this one’.”

Figure 10 5383P Seating arrangements
- Somerville Auditorium - 1947



New drainage system, paving works
and artificial turf installed

Planning his cathedral of pines

Despite some early scepticism, the environmentalist pressed on, eventually sourcing his Norfolk Island pines from the State Nursery after the original seeds failed to germinate.

Under the supervision of Oliver Dowell, UWA's foreman gardener, the pines were planted in a precise formation to create the desired cathedral-like atmosphere.

With many dismissing the project initially as a 'silly waste of space,' Mr Somerville kept the plans largely under wraps until the trees became established.

"By 1945, the auditorium was ready for its first performance – an Everyman's Music Concert held on February 15, attended by dignitaries and an enthusiastic audience of over 2,000 people, most who sat on rugs and cushions on the grass," Professor Gregory recounts.

Following the success of the concert, the Senate named the auditorium in Mr Somerville's honour. Although some, including Chancellor Sir Walter Murdoch, objected to the Latin term 'auditorium,' the name prevailed, celebrating the foresight and commitment of the 'man of trees'.

◀ With many dismissing the project initially as a 'silly waste of space,' Mr Somerville kept the plans largely under wraps until the trees became established. ▶



Figure 6 4431P Somerville Auditorium Spring 1945



Arts in action at the Somerville

In 1947, the venue expanded its offerings to include film screenings, beginning with the French historical drama *Mayerling* (1936) starring Charles Boyer and Danielle Darrieux, based on real-life events that led to the deaths of Crown Prince Rudolf of Austria and his lover Baroness Mary Vetsera.

"Under the leadership of Fred Alexander, who was Director of Adult Education, Dean of the Faculty of Arts and later Professor of History at UWA, the auditorium became a hub for summer events, drawing thousands and laying the groundwork for what would eventually evolve into the Festival of Perth," Professor Gregory says.

"As the years progressed, it continued to thrive, hosting a variety of performances – from operas and ballets to films and folk dancing and became very popular in the community, generating significant revenue for the University's Adult Education Board.

"But by the 1970s, wear and tear had led to calls for its replacement. Fortunately, a study in 1976 proposed integrating the venue into a broader performing arts complex, including the Octagon, the new Dolphin Theatre, the adjacent Eileen Joyce Music Studio and the Music Building.

"Landscape by the new University Architect at the time, Arthur Bunbury, and landscape designer, Jean Verschuer, this was described as 'one of the most beautiful sequences of precincts on the campus'."



Above: Figure 2 1928 Temple of Trees **Left:** Figure 14 5410P Set and audience - Performance Richard III - Somerville Auditorium - 1950s

In 1977, when David Blenkinsop was appointed Perth Festival Director, the auditorium regained its prominence in the arts scene. As the venue evolved, it continued to draw audiences to its iconic film screenings and live performances, becoming a cornerstone of cultural life in Perth.

Reflecting on its origins before he died in 1954, Mr Somerville noted that the Whadjuk Noongar people referred to the area as *Boorianup*, meaning 'a place of trees'.

"Magnificent trees that continue to delight and inspire the thousands of people who visit the Somerville Auditorium each year, whether to escape into a world of celluloid dreaming on summer evenings, to picnic, to celebrate, or to just be in a place of quiet contemplation beneath the canopy," Professor Gregory says. ■

For more information about UWA's history, please visit the UWA Historical Society's website, uwa.edu.au/partners-and-community/community-engagement/historical-society and its Oral History Portal, which includes more than 80 interviews with former staff members and UWA graduates, <https://oralhistories.arts.uwa.edu.au>

Leadership, agility and creativity are critical to the future of Australia's disability care sector, as frontline UWA research continues to show.

Care Factors

By Carrie Cox

Producing creative solutions in a sector necessarily steeped in regulation is an ongoing challenge for disability service organisations, but it's one that UWA research is helping to meet head on.

Associate Professor Christine Soo from the UWA Business School, has been working on major projects within the disability sector for the past 10 years, coinciding with its values-driven ideological overhaul and rollout of the National Disability Insurance Scheme. Her findings have been shared internationally and have directly influenced service design, delivery and government policy.

She says while most industries grapple with similar issues when it comes to organisational culture – chief among them effective knowledge sharing and building a psychologically safe work environment – the disability sector has additional

tensions to overcome by virtue of its vulnerable clientele and the simultaneous need for both rigid compliance and creative solutions.

"There are many tensions and paradoxes in the disability space that come with that combination of regulation and legislation – which are obviously essential for health and safety – and the need to be agile and creative; to find solutions that actually meet the specific needs of individuals," Associate Professor Soo explains.

Her first project in the sector grew out of growing awareness among disability service providers that truly effective care needs to be underpinned by certain values.

"Those values are about removing restrictions for people living with disabilities and opening up opportunities for them to better participate in employment, sports, community and to live independently, ultimately leading to better quality of life and increased wellbeing," she says.

“My research looked at the organisational factors that enable the delivery of values-driven service and care, and also which factors are barriers to it.”



Associate Professor Christine Soo

"My research looked at the organisational factors that enable the delivery of values-driven service and care, and also which factors are barriers to it. I interviewed people across different levels at 18 disability services organisations and produced a raft of findings, among them the need for senior leadership support and commitment of resources, a learning culture that facilitates voice and collaborations, and a mindset that looks at a person's ability rather than disability.

"I think the findings really resonated with care providers, especially in terms of creating environments in which people have the ability and freedom to voice their ideas and concerns, because without that, people feel restricted in how creative they can be in helping clients – they're constantly feeling as though they're not allowed to try something new or talk to other family members to create better care solutions."

Significantly, while many people go into disability care roles to make a difference, one in four of them will leave the sector within 12 months – a turnover rate roughly three times as high as the general Australian workforce.

Another project undertaken by Associate Professor Soo and her research team looked at building capabilities for family members who care for a loved one, usually a child.

"I worked with an organisation that provided training for family carers to better understand their child's needs and therefore better support them," she explains.

"Parents have such a deep understanding of their children, but they need the skills and confidence to provide the right support, so my research looked at pre-training versus post-training results to see whether the parents had developed strategies to better understand their child's needs and in turn, a higher sense of self-efficacy in their ability to support their child."

More recently, Associate Professor Soo was engaged by the National Disability Services (NDS) to conduct a comprehensive literature review of what is being done around Australia to develop culturally safe disability care and support for Indigenous communities.

"There is a pressing need for research in this space," she says, "and one of the most significant factors that my review identified, perhaps unsurprisingly, is the level of family and community involvement in Indigenous care provision. Disability care simply can't be designed in isolation from the community in which it's provided.

"Indigenous communities have a holistic view of wellbeing that recognises the importance of familial and communal ties, ancestral heritage, cultural practices, spiritual beliefs and connection to the land. Understanding this holistic view is integral to designing and delivering culturally safe disability care.

"It's very satisfying to me that the NDS will use the findings of this research in their training and development materials, as well as in recruitment because it's so important to identify people with the skills that enable cultural awareness." ■

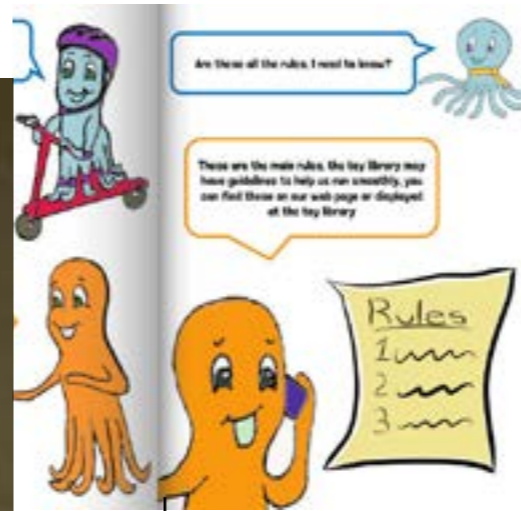


Professor Camilla Andersen

Drawn INTO LAW

By Annelies Gartner

Comic book contracts try to prevent disputes and misunderstandings because 'it's easier to not crack an egg than it is to put it back together again'.



Cockburn toy library

Professor Camilla Bassch Andersen, from UWA's Law School, was talking to Professor Adrian Keating, from UWA's School of Engineering, about people in the Makers Club being asked to sign non-disclosure agreements without understanding what it meant.

"He was angry about lawyers and agreements that nobody understood, and nobody read anyway," Professor Andersen says.

"At one point he said some nasty things about lawyers generally and I went, 'oh, what do you want Adrian - a comic book?'"

The conversation was the impetus for Professor Andersen designing the first comic book contract with illustrator Loui Silvestro. It helped keep a detailed record of contributions made by makers, for access to the rights of using the product they designed, as well as to track the payment they were owed.

Initially, Professor Andersen thought she was working on a single non-disclosure agreement in a simple comic strip form ... but then ABC and CNN aired stories.

"I think I had 850 emails the next morning from people who wanted to know more, who wanted to volunteer to work for the project for free," she says.

It has now been almost 10 years since this first comic book contract and Professor Andersen and her team are still changing the way we read and sign contracts.

Visual contracts have been created for many companies and organisations from BankWest to Cockburn Toy Library and so far they have been 'victims of their own success'.

"I was so sure the tendency we have had for complete dispute elimination would stop when we rolled out the banking contracts, because they have a track record of lots of different disputes, but there's been nothing," Professor Andersen says.

Her multi-disciplinary research team includes lawyers, illustrators, experts in finance literacy, psychologists and philosophers who help look at issues of interpretation.

"We test these images almost like a defence for anyone who uses them and who could subsequently be accused of it being ambiguous or misunderstood," she says.

"A correct focus group should have the right cross-section of end users and the right demographics, age groups and representation."

An employment contract did cause some confusion when it was used in another jurisdiction without consultation and an image used for paternity and maternity leave was completely misinterpreted.

"I think it was reused in South Africa, and the immediate pushback was why is the stork abducting my baby?" she laughs.

Professor Andersen is proud to talk about the colouring-in contracts designed for Mission Australia to help vulnerable children.

"We worked closely with psychologists who understand children and therapists who give children with serious social issues counselling," she says.

"The contract helps children listen and they can direct their attention to the images on the contract that they're having explained to them without having uncomfortable eye contact."

There's no sign of any slowdown ahead for the team as they look to move into animated contracts and keep waiting for the day a judge is confronted with a case involving a visual contract and two different people telling them what they thought it meant.

And Professors Keating and Andersen are happy to say they have become great friends and enjoy the collaboration that has grown from the project. ■



Makers Contract



REID REVIVAL

UWA's iconic library transformed for the 21st century student



By Liz McGrath

Nestled at the heart of UWA's Crawley campus, the Reid Library has long stood as a symbol of learning and collaboration, with more than one million visits a year.

Since its doors first opened in 1964, the library has been an in-demand hub for many generations of students, offering an array of learning spaces that have seen countless study sessions, group meetings and quiet moments of reflection.

Now, six decades later, level one of UWA's most student-active space is at the tail end of a significant transformation, setting the stage for a new chapter and the next generation of learners.

"The Reid Library has always been a central part of the UWA experience; however, with the exception of a significant renovation of the ground floor in 2016, it's had minimal upgrades in its lifetime," says University Librarian Scott Nicholls.

"The current project has been about honouring the library's heritage while reimagining its future."

The ambitious refurbishment has been a major undertaking, with the project team working to create a contemporary, inclusive and technologically advanced space to

support the diverse needs of UWA's students, staff, researchers and visitors.

"We've worked closely with Hassell, a leading design firm, and respected Noongar elder Dr Richard Walley, to make sure the revamp reflected not just modern design principles, but also the cultural heritage of the Whadjuk Noongar people," Mr Nicholls says.

"The themes of pathways and connections are central, echoing the diverse spaces and experiences that make UWA so unique. The primary path is 'Reed Laneway' which will act as an orientation point to connect all of the different areas.

"There are clear views out of the windows and lots of beautiful natural light. The connection to Derbal Yerrigan (Swan River) is integrated into the finishes with a series of incredible, large, circular carpet patterns and lights symbolising water droplets, which grow in size as they move towards the river."

Level one now includes an array of new facilities catering to different study preferences and requirements – from 430 student seats for small group and individual study, to sensory rooms that support neurodiversity, and a parents' study room for students and staff with children.

A student wellbeing lounge, with a committed space for The Living Room, and a home for the combined academic skills and library student drop-in service are key features.

"A lot of thought has gone into the Bilya Biddi quiet study area which features not only a reading wall housing the library's Australian literature collection but also a mirrored ceiling, creating an illusion of a two-storey wall of books," Mr Nicholls explains.

The project wasn't just about aesthetics, but functionality and sustainability as well. By upgrading ageing plant facilities, equipment, and building fittings, the plan is to reduce carbon emissions and enhance energy efficiency, aligning with UWA's broader commitment to sustainability.

"As the largest and oldest library on campus, Reid holds a special place in the hearts of UWA students, staff, and alumni," says Director University Transformation and Improvement Jill Benn, who was UWA's librarian for more than a decade. "We're excited to see how these new spaces will bring people together and foster a sense of belonging at UWA." ■

New Quantum Computing major to address industry skills gap



UWA has launched WA's first undergraduate Quantum Computing extended major in response to strong industry demand.

Students will gain access to our new state-of-the-art quantum computing hub

In response to the growing demand for skilled professionals, UWA has launched WA's first undergraduate extended major in Quantum Computing, offered under the Bachelor of Advanced Computer Science (Honours). This extended major has been designed to specifically address the significant skills gap that currently exists in this rapidly advancing field.

Quantum computing is a rapidly evolving interdisciplinary field that bridges the gap between physics and computer science, among other areas. It represents a revolutionary shift in information processing, leveraging the unique principles of quantum mechanics to create an entirely new computational architecture. This groundbreaking approach opens up many possibilities for communication and data

processing, with the potential to solve problems that are impossible for even the most powerful classical supercomputers.

Our Quantum Computing extended major aims to prepare students to meet this demand by providing them with the necessary skills in the theoretical and practical aspects of quantum computing. The curriculum covers a wide range of subjects including quantum algorithms, high-performance computing, physics, mathematics, and cybersecurity, ensuring that graduates have a well-rounded understanding of this field.

Additionally, students will explore the philosophical implications of quantum technologies, equipping them to think critically about the impact on society.

To support students' education, they have the opportunity to gain access to our new state-of-the-art quantum computing hub - one of the first of its kind in the world. The facility will give students hands-on experience with the latest quantum technologies, enabling them to develop the skills to tackle some of the most complex challenges in the world. ■

Learn more about our Quantum Computing extended major by visiting uwa.edu.au/study/quantum-computing



Giving Back and Giving Forward

Major donors, UWA staff, Guild and Convocation members with Award winners at the 2024 Award Ceremony

Convocation Councillors have a long record of 'giving back' to the University. Over the past 12 months we are delighted that their outstanding commitment to the University has been recognised.



Top: Dr Fran Pesich on presentation by Chancellor Hon Robert French AC
Above: Ms Devon Cuneo and Emeritus Professor Jenny Gregory AM

The Chancellor's Medal is awarded to those who have made outstanding and sustained contributions to the University. In the past 12 months it has been awarded to three members of Convocation Council.

First was a presentation to Clinical Professor Lesly Cala and past Warden of Convocation for her lifetime of service to UWA giving tirelessly as a professional and volunteer for many decades, her clinical work in radiology, and her advocacy for women.

Dr Fran Pesich, as President of the UWA Historical Society, was instrumental in the development of its oral history portal, UWA World War II Nominal Roll, and its annual Remembrance Day Service. She also chaired an important internal review of Convocation Council, providing the springboard for Council's Strategic Planning.

Adjunct Professor Dr Raj Kurup has won many engineering awards, including Australian Professional Environmental Engineer 2020. As a Convocation Councillor, he is passionate in coaching students and graduates and has trained more than 60 students.

The Convocation Medal is presented to members of Convocation who have made a significant and sustained contribution to Convocation, the University and the community.

This year a Convocation Medal was awarded to Devon Cuneo, Convocation Councillor and Committee member of Friends of the Grounds, language teacher and the International English Language Testing System Examiner. She has provided invaluable support for events, judged student awards nominations, billeted and mentored overseas students, as well as propagating plants and teaching others that skill for the annual Friends of the Grounds sale.

A Convocation Award is an important stepping stone in a student's career. Convocation has an enviable record in 'giving forward', providing Postgraduate Research Training Awards to more than 600 students, Matilda Awards for Cultural Excellence, Faculty and School awards and Sports scholarships.

To support these awards, donations can be made at uwa.edu.au/online-giving

The Heart of Volunteering

How UWA alumni are shaping lives and communities



Tom Durkin volunteering during his student days with UWA Pride



Nee Nee Ong volunteering as a mentor at Get Career Connected!



Top: Dunne family
Middle: Hiedi Rowe volunteering for UWA Albany Open Day
Bottom: Frangiska Venetz volunteering during NAIDOC Week



Often flying below the radar, UWA's volunteers

contribute to all walks of life, with thousands of alumni, staff and members of the community participating across a diverse range of activities every year.

From mentoring the next generation of students and serving on advisory boards, to providing accommodation for international students and participating in research projects, for many, the act of 'giving back' embodies UWA's foundation commitment to provide world-class education, research and community engagement for the advancement of the prosperity and welfare of our communities.

Here, we celebrate the inspiring stories of several alumni and ask why they are dedicated to giving back.

Tom Durkin (BCom '15, JD '18): Paying it forward

"I have been blessed with so many amazing opportunities, including receiving the Fogarty Foundation scholarship. I feel a responsibility to ensure others have access to these life-changing experiences too."

Tom Durkin, a lawyer with Victoria Legal Aid, provides essential legal support to disadvantaged individuals. His commitment to UWA through various roles – as a student and graduate – including as a guest speaker and mentor, is driven by a fundamental principle of paying it forward.

"I get a sense of connection from volunteering. It helps me prioritise what is important and develops my connection to myself and my values."

Nee Nee Ong (BE '96, MBA '00): Shaping future leaders

"I'm motivated to help our youth by encouraging, inspiring and guiding them."

Senior electrical engineer and project manager Nee Nee Ong, is committed to developing future leaders. Her extensive volunteer roles, including as a Convocation Councillor and advisory board member, reflect her passion for nurturing the next generation.

"In regard to the rapidly changing future and the major world problems, I see the way forward is developing the skills of our future leaders to innovate and help our society."

Dr Michael Dunne (MBBS '16): Inspiring Future Medical Professionals

"Mentors are typically enthusiastic about their field and ready to encourage others."

Dr Michael Dunne credits his positive experience of clinical mentoring during medical school with his desire to 'pay it forward' by taking on a clinical mentoring role himself.

"I aspire to offer as good an experience as I personally had to medical students for years to come."

Hiedi Rowe (BA '15): From student to advocate

"While studying, I volunteered as a mentor to other students, was a student rep for our student committee and organised many events."

Hiedi Rowe, a UWA Albany graduate, continues her connection with the University as secretary with the Friends of UWA Albany committee and other roles. Her volunteer work helps her to stay engaged with the UWA community and supports current students.

"Volunteering expands your professional network, allows you to learn about University developments and research, and is an enjoyable space to be in."



Emerita Professor Brenda Walker

Emerita Professor Brenda Walker: Reflecting and sharing

"We volunteer in order to help others, to share insights and expertise."

Emerita Professor Brenda Walker's involvement in volunteering reflects a commitment to sharing knowledge and providing connection. Her work in volunteer-led memoir workshops illustrates how giving back can also be a means of reflection and personal fulfillment, emphasising the reciprocal nature of volunteering – both giving and receiving.

"It provides connection and company, and for many retirees, it involves revisiting and shaping memories into valuable experiences." ■

Frangiska Venetz (BEnvDes '02, BArch '05): Empowering change

"Our strength is like a fire that drives change and celebrates our wisdom."

Through volunteering and connecting with current School of Indigenous Studies students, Worora / Walmajarri woman Frangiska Venetz strives to lead by example.

"Even amid challenges, our community's resilience and knowledge offer valuable lessons and inspire positive change."

Introducing the McCusker Chair in Citizenship



Michelle Scott OAM

RESHAPING Citizenship



Kruti Giridhar at WA Museum



McCusker Centre for Citizenship Advisory Committee members with students and Vice-Chancellor Professor Amit Chakma at the launch of the UWA McCusker Chair in Citizenship



Gary Rantetadung at Australian Council on Smoking and Health

The McCusker Centre for Citizenship at UWA was established in late 2015 with a generous endowment from the McCusker Charitable Foundation and a mission to provide opportunities for students to make practical contributions to addressing challenges in the wider community.

Aligning with UWA's founding principle to advance the welfare of the community, the Centre's internships act as a structured pathway for students to develop a sense of civic responsibility and lifelong active citizenship – encouraging participants to view

themselves as active contributors to societal change, regardless of their career pathway.

From the beginning, the Centre has fostered collaboration between community, industry partners and students. Starting with a small intake of 16 interns in early 2016, the Centre has now facilitated more than 3,600 internships with more than 500 partner organisations, for students from every study discipline across UWA. This rapid increase in demand reflects the desire many students now have for a deeper purpose than just academic or career achievement.

For Gary Rantetadung, who interned with the Australian Council on Smoking and Health during the

final semester of his Master of Public Health degree, the program was the real-world culmination of theory and practice.

"In this internship, I was not only learning, gaining professional experience and networking," Gary explains.

"It was an opportunity to serve the community and contribute as an active citizen using the skills and knowledge gained during university."

The enthusiasm of students wanting to understand contemporary social challenges and their drive to create positive change also leaves a profound impression on the program's community partners.

Tim Bray, CEO of the Gascoyne Development Commission, hosted interns for the first time in 2024 and found the experience mutually beneficial, seeing the interns as new ambassadors for the region, taking with them broad insights into its potential for growth and overcoming challenges like climate extremes.

"This was an invaluable opportunity to see our region and its opportunities through the eyes of skilled young professionals with new ideas," Tim says.

"Their work, ambition and input, as well as their drive to experience the region to the maximum, makes us look forward to future interns from the program."

While an impressive 97 per cent of students and community partners report they would recommend the program to their peers, its true impact is perhaps most acutely evidenced in the stories of its alumni.

UWA Juris Doctor graduate Helena Trang undertook an internship with the Museum of Freedom and Tolerance, while also chairing the Centre's Student Advisory Committee, and credits her internship for inspiring a career in social policy which has seen her work on a range of projects for state and federal governments, as well as large philanthropic groups and not-for-profit organisations.

"My passion is in tackling social policy problems across education and youth justice in Australia," explains Helena, now based in Melbourne with Mandala Partners. "The Centre provided me with a network of like-minded individuals and organisations which strongly shaped my career interests."

In recognition of the Centre's growth and impact in the community, UWA recently announced Michelle Scott OAM, Director of the McCusker Centre for Citizenship, as the inaugural McCusker Chair in Citizenship, following a further endowment from the McCusker Charitable Foundation. Together with an increased contribution from UWA, this will allow more students to participate in the Centre's programs.

The establishment of the McCusker Chair in Citizenship reflects the value UWA places on students becoming good citizens in their communities, securing its ability to meet growing student and community demand for generations to come. ■

Yarning FOR CHANGE



Ms Glenys Collard and Dr Celeste Rodriguez Louro discuss their work with the Heart Foundation by the Derbarl Yerrigan (Swan River)

By Liz McGrath



Ms Glenys Collard with Nyungar actor Kelton Pell



A screen shot from the 'Get a heart check' Heart Foundation video

« Our collaboration is a great example of how linguistic research and First Nations-led initiatives can intersect to create impactful, community-oriented resources. »

A trailblazing language partnership is bridging cultures to help save lives

Despite Indigenous Australians facing nearly twice the risk of dying from cardiovascular disease compared to non-Indigenous Australians, most heart health messaging for Aboriginal communities is scripted in mainstream English, missing the mark on cultural relevance.

An innovative collaboration between Chair of Linguistics and Director of the Language Lab at UWA Dr Celeste Rodríguez Louro and respected Nyungar educator and writer Glenys Collard is working to change that.

In partnership with the Heart Foundation, the language experts have crafted two powerful heart health videos, fully scripted in

Aboriginal English, in a whole new approach to First Nations-based health marketing campaigns.

Dr Rodríguez Louro says the initiative, born out of a shared passion for culturally safe communication, represents a significant step in decolonising medical media.

“The videos use the traditional First Nations’ practice of yarning, a culturally rich form of storytelling and conversation, presenting vital health information in a way that may resonate with Aboriginal and Torres Strait Islander communities,” she explains.

“Yarning isn’t just talking; it’s a really powerful conduit for knowledge transfer, especially in the context of health. For us it was key to ensuring that the medical messages

weren’t just heard, but ideally also understood and valued in these communities.”

For Ms Collard, every aspect of what the videos portrayed was important, from the fact that the setting for the animated characters was largely outside, to the work of Nyungar actor Kelton Pell for the voice overs.

“He (Kelton) knew what we were talking about, the way we talk at home to our mob,” Ms Collard says. “He understood what reading this yarn was, it was just us talking.”

The success of the project, which is captured in detail in the newly released Routledge volume, *Language and Decolonisation: New Interdisciplinary Conversations*, is reflected in its reach and reception.

The first video, released in 2020, attracted more than 13,000 views on YouTube, with the second video continuing the momentum. Beyond the online space, state-of-the-art video brochures were distributed to remote communities, so that those without internet access would also benefit.

“Our collaboration is a great example of how linguistic research and First Nations-led initiatives can intersect to create impactful, community-oriented resources,” Dr Rodríguez Louro says.

“It not only showcases the potential of Aboriginal English as a medium for important health messages but also highlights the broader role of language in decolonisation efforts.”

Dr Rodríguez Louro and Ms Collard say they will continue to challenge the status quo to pave the way for more inclusive and culturally relevant approaches in medical media to ensure the voices of First Nations people aren’t just included but are at the forefront of the conversation.

“We have to work together, it’s about teaching each other,” Ms Collard says.

Their next project involves making voice-operated technology, like the ones used on mobile phones, more inclusive for speakers of Aboriginal English. Stay tuned! ■

In the frame

Connected: our alumni, staff and students snapped at UWA events this year.
Stay in touch or update your details at:
alumni-update@uwa.edu.au

GRADUATION HIGHLIGHTS



EXPLORE O-DAY

BUSINESS SCHOOL GET CAREER CONNECTED



UWA FOGARTY, WINTHROP AND LAWRENCE SCHOLARS FIRST YEAR RECEPTION



WASHINGTON DC ALUMNI RECEPTION



UWA alumni reception in Washington DC with the Hon Dr Kevin Rudd, Ambassador of Australia to the United States of America

SCHOOL OF ENGINEERING SALUTE TO FORMER EDUCATORS



Emeritus Professor James Trevelyan and School of Engineering host the Salute to Former Educators Dinner

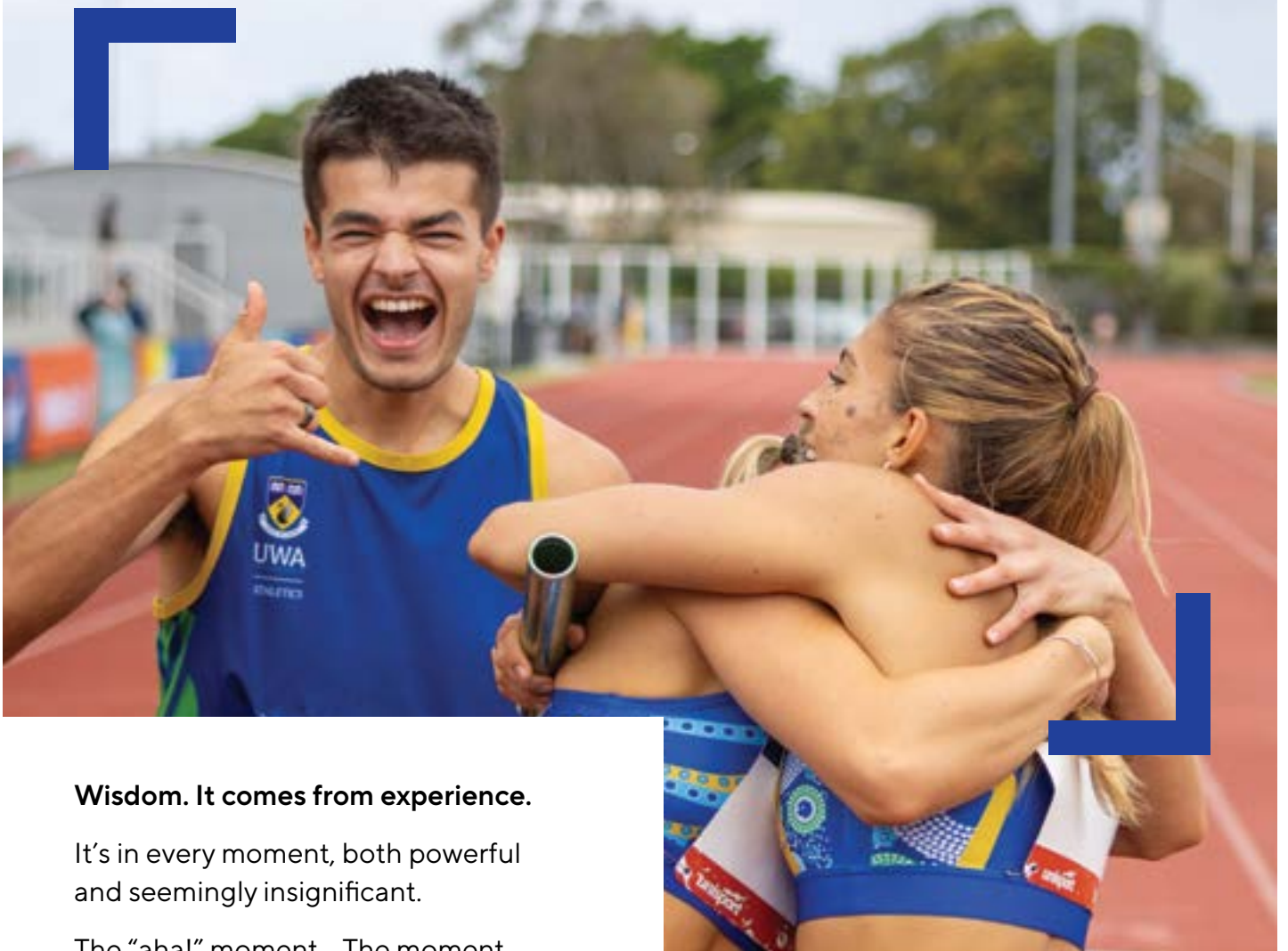


UWA Hockey Club Patron and Federal Minister for Resources and Northern Australia, the Hon Madeleine King MP, addressed 300 past and present UWA Hockey Club members at the club's Centenary Cocktail Party

INDONESIA ALUMNI GET TOGETHER



A moment of connection



Wisdom. It comes from experience.

It's in every moment, both powerful and seemingly insignificant.

The "aha!" moment... The moment everything just clicks... or the moment a classmate becomes a lifelong friend.

These are the moments that will change your life.

Come find yours at UWA.

uwa.edu.au/seek-wisdom

Seek Wisdom

