

ENCOUNTER

THE ANNUAL MAGAZINE FOR FLINDERS UNIVERSITY ALUMNI AND FRIENDS / 2019

PREDICTING THE FUTURE OF THE EARTH

Flinders graduate breaks
new ground in Earth Science



Flinders
UNIVERSITY

DISCOVERY

of Matthew Flinders

STORY BY: DAVID SLY



**Former St James burial ground
under Euston train station, London**

Photo by: Tim Stevens (c) 2019 ABC
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The accomplishments of intrepid 18th century British navigator Captain Matthew Flinders – namesake of Flinders University, and the first person to circumnavigate and chart the continent of Australia – recently came back into focus with the rediscovery of his remains in an old London graveyard.

For decades, Captain Flinders' grave had been concealed beneath Euston train station, the site of the former St James' burial ground. Archaeologists excavating the area to make way for the HS2 high speed rail project found Captain Flinders' coffin, thanks to a well-preserved lead breastplate – a fortuitous identifier, as his headstone had been removed in the 1840s.

The discovery, 216 years after Captain Flinders circumnavigated Australia, provides a timely reminder of his innovations in navigation and cartography, ground-breaking scientific work, embracement of technology, sense of adventure, and his strength of character to achieve feats of great difficulty.

Matthew Flinders was a man of great ambition who was determined to leave his mark on the world.

'I have too much ambition to rest in the unnoticed middle order of mankind,' wrote Captain Matthew Flinders in his journal in 1804, 'and since neither birth nor fortune have favoured me, my actions shall speak to the world.'

Such resolve made Captain Flinders a worthy inspiration when Sir Kenneth Agnew Wills, Deputy Chancellor of the University of Adelaide, proposed Flinders' name for a new South Australian university in August 1965. The example set by the extraordinary explorer remains compelling and relevant to Flinders University today.

Vice-Chancellor Professor Colin Stirling says the recent discovery of Captain Flinders' remains enables one of history's great explorers to be properly honoured. 'Matthew Flinders was a man of great ambition who was determined to leave his mark on the world. How fitting that his grave has been identified and that the great explorer can now be assigned a fitting final resting place where his legacy can be appropriately recognised.'

Captain Flinders made three voyages to the southern ocean between 1791 and 1810, but his most famous was his third voyage in 1801, as commander of *HMS Investigator*, which circumnavigated the mainland as he created the first complete map of the continent.

Bungaree, a Kuringgai man from what is now the Broken Bay area of New South Wales, was in the crew, making



Bungaree,
crew member on
the *Norfolk* and
HMS Investigator
Image courtesy
Australian Museum

him the first Australian to sail around his native continent. Noted as a community leader and powerful identity during the early colonial years, Bungaree accompanied Captain Flinders on a 1798 journey between the Australian mainland and Tasmania on the *Norfolk*, then accompanied Flinders on *HMS Investigator*, between 1801 and 1803.

Working as an interpreter and guide, Bungaree was a crucial intermediary, being the first ashore to talk with the local communities, and ensuring safe passage and access to fresh food for the crew. Captain Flinders described Bungaree as a 'worthy and brave fellow' who saved the expedition multiple times.

The example set by the extraordinary explorer remains compelling and relevant to Flinders University today.

Also notable aboard Captain Flinders' ships was a small black and white cat called Trim, named after the butler in Laurence Sterne's book *Tristram Shandy*. Trim was born in 1799 on board *HMS Reliance*, during the voyage from the Cape of Good Hope to Botany Bay, and remained a constant companion to Captain Flinders. He was noted by the captain for having an especially adventurous spirit after the cat fell overboard and had to climb up a rope to safety. Captain Flinders later wrote a biography for his cat, along with other tributes and poems.

Matthew Flinders eventually returned home to England in 1810, but sadly did not live to see the effect of his monumental work *A Voyage to Terra Australis*, which included a journal, maps, atlas and countless drawings, and was essential to the naming of Australia. He died, aged 40, only one day after its publication on 19 July 1814.

OUR RESIDENT FLINDERS EXPERT

Flinders honorary senior research fellow Dr Gillian Dooley (BA(Hons) '96, PhD(EHLT) '01) has devoted much of her career to Matthew Flinders, having co-edited (with Anthony J Brown) *Flinders' Private Journal*, written between 1803 and 1814. In April, Dr Dooley presented a lecture on Matthew Flinders' cat, Trim, at the international conference on Maritime Animals in London and has been invited to give a public lecture in Donington, Flinders' birthplace. In July, Dr Dooley will issue a book that examines Flinders' endeavours, *The First Wave: Exploring Early Coastal Contact History in Australia*, followed by her edition of *Flinders' Biographical Tribute to the Memory of Trim*, in October.

flinders.edu.au/people/gillian.dooley

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FLINDERS UNIVERSITY'S WORLD-CLASS RESEARCH

The will to drive exceptional research at Flinders University has never been stronger. Improved results in recent university assessments support our decision to commit even more resources to amplify our efforts.

I recently announced that Flinders will invest an additional \$100 million in research over the next five years—a powerful endorsement of the University's status as an inspiring research institution—to elevate areas of existing strength and those of future strategic importance.

Rising status in the 2018 Excellence in Research for Australia (ERA) assessment confirms Flinders produces research that drives positive change in the world. We have doubled our exceptional performance results, achieving 'well above world standard' research rankings in Health, Science, Nanotechnology and several other fields. It sets a strong platform on which Flinders will build an even more meritorious future in research outcomes.

The detailed results rate 90% of Flinders University research at or above world standard. In addition to our continued exceptional performance in Nanotechnology, Cardiovascular Medicine and Haematology, Ophthalmology and Optometry, it is exciting to see several more disciplines joining them at the Level 5 top rank, notably Medicinal and Biomolecular Chemistry, Evolutionary Biology, Plant Biology, Condensed Matter Physics, Oncology and Carcinogenesis, Physical Chemistry, and Material Engineering.

The ERA outcomes were followed just days later by the Australian Research Council's inaugural national assessment of research engagement and impact, evaluating how universities are translating their research into economic, environmental, social and other benefits, and the way in which universities are engaging with end-users of research.

Flinders was reviewed in 19 areas and found to have positive impact and meaningful engagement in 90% of the Units of Assessment analysed.

These results collectively reflect Flinders' stature as a leader, driving innovation and ground-breaking research that extends beyond our campuses to engage business, industry and the community. It will further enhance our global reputation and create more opportunities for strategic international collaborations with high quality partners in academia and industry.

Such positive outcomes are further evidence we are achieving the ambitions of our strategic plan *Making a Difference: The 2025 Agenda*, which declares the University's commitment to be a world leader in research through contributing knowledge, understanding and practical solutions that will improve lives and benefit society.



Professor Colin J Stirling
President and Vice-Chancellor



OUR PLAN FOR AN ENVIRONMENTALLY SUSTAINABLE FUTURE

In the last edition of *Encounter* magazine I outlined our push to increase sustainability across our campuses. I'm delighted to let you know that we have now finalised our Sustainability Plan, which maps out a path for Flinders to be an increasingly responsible, 'green' university.

Officially launched alongside our 1.8MW solar array generating 20% of our campus energy needs, the Sustainability Plan includes a forward strategy for even more solar panels over pathways, carparks and on buildings, the reduction of single use plastics, and increased recycling points. The Flinders community is digging in with our flourishing community garden, and harnessing our world-leading water management research expertise to better manage campus water.

Flinders is also pleased to be collaborating with Marion Council on a 'Living Lab' at the Oaklands Wetland, where our researchers are not only developing new technologies to remediate and re-use precious water supplies, but are also working with schoolchildren to foster a love of science and a greater awareness of how research can change lives and change the world. Read the Oaklands Wetland article on pages 24-25 for more on this initiative.

We have so much inspiring work underway at Flinders, and I hope you take the opportunity to visit soon and catch up on our efforts to create a more environmentally sustainable future.

flinders.edu.au/sustainability



MESSAGE FROM THE EXECUTIVE DIRECTOR

Welcome to *Encounter*, Flinders University's annual magazine for alumni and friends, celebrating your achievements and highlighting activity at the University.

You may have seen in the news that Matthew Flinders' remains were unearthed in London recently. In this edition we bring you more details on that discovery, along with insights into Captain Flinders' explorations during his mapping of Australia (p2).

Our Special Collections in the Flinders University Library hold many items of significance – thanks to a change in copyright laws earlier this year, we can now reveal some of its hidden secrets (p10).

Our research continues to make a difference in myriad ways, such as addressing access to heart failure services in rural

and regional Australia (p34), improving the health system for Aboriginal communities (p8), and creating bully-free schoolyards (p30).

A collaboration with Marion Council is increasing our community engagement and opportunities for learning through an onsite classroom program at Oaklands Wetland for local high schools (p24).

Meanwhile, it's hard to ignore the political upheaval around the world over the past year, and our award-winning Professor Tara Brabazon AM brings you her expert opinion on Trump and Brexit (p22).

As highlighted in last year's *Encounter* magazine, we have expanded the Alumni and Advancement team at Flinders University. I am excited to announce our new team headed by Alumni Relations Manager Kim Pryor and Advancement Senior Manager Mark Goldsmith. To meet the team please visit flinders.edu.au/alumni-advancement.

Our new program of activities for alumni has been launched and includes the Horizon Professional Development program and Horizon Mentoring opportunities, along with the opportunity for alumni to have a 'behind the scenes' tour of the internationally-significant Flinders University Art Museum.

To stay up to date on our new activities and professional development for alumni, and with alumni news and opportunities, please keep an eye on your inbox for our monthly e-newsletter.

Finally, we love to acknowledge the achievements and celebrate the successes of our alumni through our annual Flinders University Alumni Awards. You can read the inspiring stories of the 2018 recipients throughout this magazine, and we welcome your nominations for the 2019 Alumni Awards.

I look forward to connecting with you during the year ahead.

Callista Thillou
Executive Director, Alumni & Advancement

Become a Horizon Professional Mentor at Flinders

Make a meaningful contribution to a Flinders University student's future by supporting and guiding them to develop and achieve their goals.

Being a mentor is a wonderful opportunity to achieve personal and professional benefits including refining your interpersonal and leadership skills and gaining new ideas and perspectives from our emerging professionals.

Contact Lian van Veen, Horizon Professional Mentoring Program Coordinator on (08) 8201 2271 or at lian.vanveen@flinders.edu.au.

2018 *Alumni Awards*

UNDERWATER HERO'S FEET FIRMLY GROUNDED

Flinders' international action man

STORY BY: TANIA BAWDEN

**2018 Flinders Alumni Awardee
Dr Richard Harris SC OAM**

From shy schoolboy to international action man in last year's Thai cave rescue, Flinders University graduate Dr Richard Harris SC OAM (BMBS '89) has returned to reality at his high-pressured job as a specialist anaesthetic expert.

Facing life or death is an everyday occurrence for Dr Harris who works at Specialist Anaesthetic Services, as a Retrieval Consultant for MedSTAR, and as medical lead for the SA Urban Search and Rescue Task Force. These roles follow years of experience in critical care and retrieval services in the UK, New Zealand and the Pacific.

Since his highly celebrated role in rescuing a boys' soccer team and their coach from a flooded cave in Thailand last year, Dr Harris has received joint OAMs, Stars of Courage and the coveted Australian of the Year with his dive partner Dr Craig Challen.

'I was so grateful on my first night shifts as an intern when I realised I was already prepared to insert drips and catheters in my patients without supervision – life-saving skills for a young doctor.'

In 1982 Dr Harris started his Bachelor of Medicine and Bachelor of Surgery at Flinders University, where he met people from different walks of life and discovered new ways of thinking.

'I went to a private boys' school in Adelaide and on arrival at Flinders I soon realised what a sheltered life I had lived,' says Dr Harris. 'Not only was the University

modern and progressive, but at such an inclusive campus I soon experienced different viewpoints, cultures and lifestyles.'

Dr Harris reflects that a major highlight of the Flinders medical degree was having the final exams at the end of the fifth year, followed by a final year working as a student intern at the Repat Hospital, ahead of the real intern year that was to follow.

'I was so grateful on my first night shifts as an intern when I realised I was already prepared to insert drips and catheters in my patients without supervision – life-saving skills for a young doctor.'

As well as expertise in anaesthesia for breast and endocrine surgery, ear, nose and throat, and acoustic neuroma surgery, upper gastrointestinal surgery and endoscopy, Dr Harris' love of adventure has combined medical practice with a lifelong interest in diving.

His 30-year passion for exploring underwater caves has led him to work as a cameraman, diver and medical support on National Geographic documentaries and feature films.

2018 FLINDERS ALUMNI AWARD

Dr Richard Harris SC OAM was awarded a 2018 Distinguished Alumni Award for outstanding service to the international community through his specialist response role during the 2018 Tham Luang cave rescue in Thailand.

flinders.edu.au/alumni-awards



IMPROVING THE SYSTEM

CHANGING PERSPECTIVES ON ABORIGINAL HEALTH

STORY BY: BILL CONDIE

Flinders University researcher Dr Annabelle Wilson (BNutDiet(Hons) '07, PhD(HlthSc) '12) is changing the way non-Aboriginal health professionals are working with Aboriginal and Torres Strait Islander peoples.

As a young dietitian, Dr Wilson worked closely with Aboriginal communities in rural and remote South Australia where she soon discovered the health system did not meet community needs. Her experiences set her on the path to change the system.

'I just felt totally ill-equipped to work with Aboriginal people,' she says. 'I felt like the health service had a set of different priorities to those of the Aboriginal people I was working with. It didn't match up and I didn't feel supported by the health service. It made me want to leave.'

She didn't leave. Instead she based her PhD work on investigating how health professionals could contribute to better health outcomes for Aboriginal people. A crucial

part of the solution, she says, was working with Aboriginal communities and acknowledging their strengths.

'The mainstream health system doesn't always fit well with an Aboriginal view of health, which is much more holistic.'

After spending more than 12 months getting to know local Aboriginal community leaders, Dr Wilson says, 'I was able to interview Aboriginal people who were health professionals. I also did informal focus groups with community members about what they thought about the practice of non-Aboriginal health professionals.'

What she discovered was that the existing mainstream health system, focusing primarily on health being the absence of disease, was vastly different to an Aboriginal 'whole-of-life'



and 'whole-of-community' view of social, emotional, spiritual and cultural wellbeing.

'The mainstream health system doesn't always fit well with an Aboriginal view of health, which is much more holistic,' says Dr Wilson.

She then set about interviewing the non-Aboriginal health professionals working in Aboriginal communities, and followed this up by broadening the research to dietitians across South Australia.

'There were those who thought it was too hard to change the system and just disengaged, but there were those who I called barrier-breakers who, regardless of all of the challenges, just went ahead and made changes anyway,' says Dr Wilson. 'These people had the most effective practice and were most aware of their own position as non-Aboriginal people.'

She also found that an individual health professional's ideology and their awareness of issues such as colonisation, as well as the attitude of the organisation they worked for, were all crucial factors in working effectively with Aboriginal people.

'My research demonstrated that when non-Aboriginal health professionals have an understanding of their own attitudes, biases, prejudices and their position or standpoint they are able to engage much more effectively with Aboriginal people.'

To identify and address these aspects, Dr Wilson encourages a practice of individual reflexivity. She says, 'Reflecting on

what you did, the event or activity and how you felt, then thinking about what worked well and what could be done better next time, is an effective approach'

She has even written a paper on how to do this, titled 'Addressing Uncomfortable Issues: Reflexivity as a Tool for Culturally Safe Practice in Aboriginal and Torres Strait Islander Health', which was published in the *Australian Journal of Indigenous Education*.

The impact of this work on individual health professionals has been great.

'Reflecting on what you did, the event or activity and how you felt, then thinking about what worked well and what could be done better next time, is an effective approach.'

Dr Warwick Teague, Director of the Trauma Service and Academic Paediatric Surgeon at The Royal Children's Hospital in Melbourne, says, 'Annabelle's paper encouraged me to explore reflexivity and to start immediately to put these principles into action. I discovered that my personal journey of discomfort, uncertainty and unfamiliarity was far from unique.'

Dr Wilson has also worked with Robyn Delbridge from Swinburne University (previously the convenor of the Dietitians Association of Australia Indigenous Interest Group) and Associate Professor Claire Palermo from Monash University, to develop a Community of Practice peer mentoring group for dietitians and nutritionists working in Aboriginal health.

'The group met six-weekly and engaged in deep self-reflection and reflexivity about their work, including barriers and facilitators to working well with Aboriginal people,' says Dr Wilson. 'The focus was on the health professional as the person that needs changing, rather than the Aboriginal client.'

'I would like to work towards bringing a knowledge interface approach into health care where Aboriginal and non-Aboriginal knowledge is brought together to create new knowledge – where both are valued equally.'

Since then, health professionals across Australia have picked up on Dr Wilson's work to address issues in their own practice with Aboriginal and Torres Strait Islander peoples.

Meanwhile, Dr Wilson is working in partnership with Aboriginal and non-Aboriginal researchers to change other aspects of how health professionals deliver outcomes, and how to bring Aboriginal and non-Aboriginal perspectives together.

'I would like to work towards bringing a knowledge interface approach into health care where Aboriginal and non-Aboriginal knowledge is brought together to create new knowledge – where both are valued equally.'

HIDDEN TREASURES

of the Flinders University Library

STORY BY: DAVID SLY

Special Collections Librarian Pixie Stardust with the first edition of *A Voyage to Terra Australis* by Captain Matthew Flinders

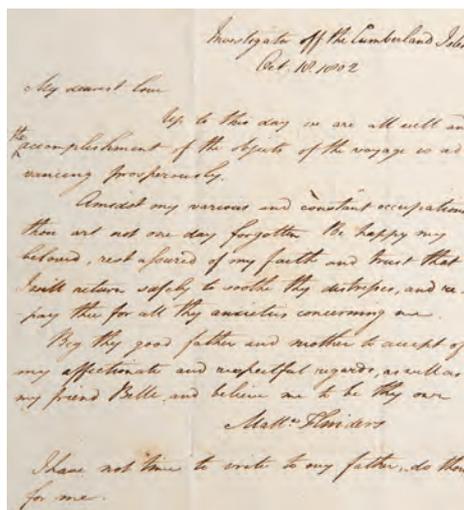
Thanks to recent changes in Australia's copyright laws, many of the great treasures within Flinders University Library can now be made available for public access for the very first time.

2019 is being celebrated as the Year of the Public Domain, due to changes in the Copyright Act coming into effect on 1 January. The changes mean perpetual copyright for unpublished works has ceased, enabling large numbers of old materials to be freed from closed collections so that they can now be appreciated by everyone.

This change allows greater access to the Library's Special Collections, comprising more than 100 exceptional and unique collections, including rare and antiquarian books, prints, letters, drawings, manuscripts, photographs, maps, audio and video files – even garments and objects.

'Special Collections at Flinders is a unique teaching and research resource,' says Liz Walkley Hall, Associate Librarian, Collections, College and Research Services. 'It has a rich and important legacy for the University, which the current generation now has the amazing opportunity to access.'

Here we feature some of the hidden treasures of our Special Collections within Flinders University Library.



1.

Matthew Flinders Letter

An original letter from Matthew Flinders to his wife Ann, written while he was circumnavigating Australia, dated 10 October 1802, from aboard the *HMS Investigator*. Flinders cheerfully explains that the objectives of his voyage are 'advancing prosperously'. However, despite the rigour of his tasks, the 28-year-old captain declares to Ann that 'thou art not one day forgotten' and aims to soon return to soothe his wife's distress and to repay her for 'all thy anxieties concerning me'.



2.

1862 *Victoria Psalter*

One of the most spectacular editions of the Book of Psalms ever published, the 1862 *Victoria Psalter* by Owen Jones, was dedicated to Queen Victoria. This book contains magnificent full-page chromolithograph illuminations of translated psalms. Owen Jones is considered among the greatest chromolithographic designers of the 19th century, and was a significant influence on both William Morris and the arts and crafts movement.



3.

Indonesian Digital Collection

The recently released digital collection was donated to the library in 2013 by Flinders' Indonesian Studies expert Associate Professor Anton Lucas. With more than 400 items, the digital collection presents a sweeping record of 20th century Indonesian history and politics, covering such pivotal events as the Japanese occupation during World War II and the Indonesian revolution in the late 1940s.

4.



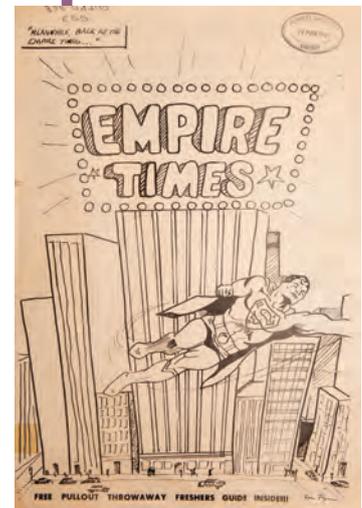
Don Dunstan's Safari Suit

This form of casual summer attire, worn in South Australian Parliament by Premier Don Dunstan during the early 1970s, became a popular cultural icon. It signalled a seismic shift away from arch-conservative values that had dominated South Australian life for many decades. It forms a curious centrepiece to the Dunstan Collection, a separate purpose-built room in Special Collections that contains files relating to his political, professional and personal life, photographs, press clippings, speeches, audiovisual material and other memorabilia.

5.

Empire Times Magazines

This year marks the 50th anniversary of *Empire Times* student magazine, a publication launched in 1969. Its first editor was Martin Fabinyi, who was studying drama at Flinders and went on to a successful career in screenwriting and production. He started Regular Records in Sydney, home of popular bands such as Mental As Anything and Icehouse. *Empire Times* has remained a tolerant, eclectic vehicle for student voices throughout its 50-year history.



VISIT OUR SPECIAL COLLECTIONS

Special Collections is on level three of the Flinders University Library and is open to the public by appointment, Monday to Friday 10am to 4pm, contact 08 8201 2173 or email special.collections@flinders.edu.au

flinders.edu.au/special-collections



WHERE THERE'S A 'WIL', THERE'S A WAY

Sporting careers get off to a strong start at Flinders

STORY BY: TANIA BAWDEN

At Flinders University, pathways and practical skills for Flinders graduates to take to the workplace are unfolding under the University's Work Integrated Learning (WIL) program.

WIL is a strategic priority at Flinders, making graduates 'work ready' through workplace experiences such as clinical placements, internships, field education, and vocational and professional placements across a suite of organisations and industry sectors.

With more than 100 hours of placements as part of their coursework, Flinders Bachelor of Sport, Health and Physical Activity students are gaining valuable insights into a wide range of job opportunities in professional sporting arenas.

With a passion for tennis since she was 12 years old, third year sports student Kayleigh O'Donnell can now add a placement with Tennis SA to her CV.

She says the Tennis SA experience at Adelaide's Memorial Drive was very rewarding. 'It provided me with a lot of practical experience, including high performance coaching – which is my degree stream.

'I worked with a number of physical performance, strength and conditioning coaches, and national level tennis coaches to improve the performance of junior elite tennis players, including the opportunity to travel to the Sydney International tournament in January.'

'I worked with a number of physical performance, strength and conditioning coaches, and national level tennis coaches to improve the performance of junior elite tennis players.'

Kayleigh's placement was supported by Tennis Australia National Physical Performance coach Tom Mabon. He says, 'It's a tough industry to break into, but uni placements and volunteering are a great way to negotiate a career in the field.

'We give our university placements feedback on how they perform, which helps them to develop their skills and also think about their career path beyond university!'



**WIL student Kayleigh O'Donnell
with Tennis Australia's Tom Mabon**

Just back from a six-week placement with England's Premier League football club Arsenal, final-year double sport-business degree student Callum Dunk says the international experience was 'extremely important'.

'Gaining international experience is a massive thing, especially with a large global club like Arsenal, which is recognised all over the world,' says Callum.

'My main focus was helping with Arsenal in the Community programs, including disability and refugee fitness sessions, Arsenal U23s, strength and conditioning sessions, coaching primary school aged students, and playing lawn bowls with the elderly.'

'Gaining international experience is a massive thing, especially with a large global club like Arsenal, which is recognised all over the world.'

Callum, who juggles his studies with part-time work at Badminton SA as well as coaching commitments, has also experienced a WIL placement in Mumbai, India, coaching

young cricketers, and a study tour in China with a business and marketing focus.

'I would love to work for Cricket Australia or an AFL club so I'm hoping my placement experience, plus business and marketing credentials, will add to my potential in the job market,' says Callum.

Improving employability for Flinders graduates, Work Integrated Learning provides our students with the opportunity to develop their communication skills and professional identity, engage in teamwork, problem-solving and self-management, while expanding their theoretical knowledge and transferable skills in the field.

WORK READY THROUGH WIL

More than 10,000 Flinders University students completed nearly 18,000 work placements last year, including a strong contingent from the Bachelor of Sport, Health and Physical Activity within Flinders' College of Education, Psychology and Social Work.

flinders.edu.au/wil

REDEFINING DEMENTIA TREATMENT

Consumer Companion Guide

STORY BY: BILL CONDIE



Dr Kate Laver's research in dementia care supports health professionals and carers

Occupational therapist and researcher Dr Kate Laver (MClinRehab '09, PhD(Med) '12) at Flinders University's Department of Rehabilitation, Aged and Extended Care, is redefining the way we treat dementia and introducing the best academic research to daily clinical practice.

Having coordinated the development of the Clinical Practice Guidelines for Dementia in Australia, which are endorsed by the NHMRC and used as the basis of practice for many clinicians, Dr Laver has had a major impact in the way we diagnose and treat dementia.

But it was the spin-off work she did in conceiving a complementary tool, the Consumer Companion Guide, that has arguably made the most significant difference for ordinary Australians living with dementia.

'There is very good evidence that exercise and occupational therapy can delay functional decline in people with dementia.'

With the aim of making the latest scientific research on dementia accessible to patients, their families and their professional caregivers, the Guide is distributed through Dementia Australia and Dementia Support Australia.

'The Guide is distributed across Australia and informs people with dementia and their caregivers about the latest evidence. It describes the sort of care that they should be asking for,' says Dr Kate Laver.

As a result, this has opened up opportunities for new treatments and therapies to be discussed between patients and their healthcare providers.

'There is very good evidence that exercise and occupational therapy can delay functional decline in people with dementia,' Dr Laver explains.

'But these approaches are not often recommended in practice. No one tells someone with dementia, "To stay active and independent, the best thing to do is exercise and stay involved in your roles within your household and in the community." Instead they say, "Stay safe." So, with the best of intentions, people may be missing out on what is most in their interest.'

Dr Laver's work is also helping doctors, nurses and allied health professionals do right by their patients by detailing optimal diagnosis and management in community, residential and hospital settings.

'We have formed a collaborative of different health professionals who work in dementia care from all over Australia, including 38 clinicians, doctors, physios, occupational therapists, social workers and nurses,' says Dr Laver.

The group learns about the latest evidence in dementia care relevant to their particular area, to then work on delivering the best outcomes for their patients.

'We support them to develop a quality improvement plan. The idea is that they're working to improve practice for people with dementia and their carers in the community. And then we're facilitating and providing the support and education to be able to do that.'

Dr Laver is now conducting a project to investigate if an occupational therapy intervention program in the US can be delivered as effectively through Telehealth, where health services are delivered from afar through video calls and other communication devices.

'The original US program has been shown to be very effective, but it's delivered through ten home visits,' says Dr Laver. 'We're testing whether you'd be able to deliver the same program using Telehealth.'

The study has recruited 60 people to receive the dementia care program over four months, with half receiving it through home visits, and the other half receiving the program through Telehealth.

'We have formed a collaborative of different health professionals who work in dementia care from all over Australia – 38 clinicians, doctors, physios, occupational therapists, social workers and nurses.'

'When you're in someone's home and face-to-face, you develop more rapport, you get more of a sense of what's going on. But at the same time, it's almost impractical for most services to provide ten home visits, particularly in country areas, where they might live two hours from Occupational Therapy services.'

Dr Laver says, 'If we're able to provide services through Telehealth and it's just as effective, then it means that it's more efficient, less resource intensive and more accessible.'

CONSUMER COMPANION GUIDE

The Consumer Companion Guide and further dementia care resources are available through Dementia Australia. The resources provide health professionals and carers, aged care and hospital settings with access to recommendations reflecting current evidence on dementia care, to better respond to the needs and preferences of the person living with dementia.

dementia.org.au/resources/clinical-practice-guidelines

2018 *Alumni Awards*

PREDICTING THE FUTURE OF THE
EARTH

FLINDERS GRADUATE BREAKS NEW
GROUND IN EARTH SCIENCE

STORY BY: TANIA BAWDEN

Success usually means the world's your oyster, but for geo-scientist Dr Garry Karner (BSc(Hons) '75) the Earth is his playground.

The global impact of Dr Karner's lifetime achievements is making the world a better place by creating greater understanding of the Earth in order to more safely extract its precious resources that drive economic growth.

Adelaide-born Dr Karner, the recipient of a prestigious 2018 Flinders University Convocation Medal, is a world-leading authority in the study of the formation and 'deformation' of the Earth's crusts, a sub-discipline of geology called tectonics, and the formation of oceanic and continental crusts and their sedimentary basins.

'The recent rate of climate change is accelerating and one of the most immediate results will be immense social upheaval of coastal communities and entire nations living on real estate only metres above sea level.'

Based in Houston, Texas, as a senior researcher for ExxonMobil, he's seeing more than 20 years of his research rolled into a comprehensive software system known as Quantitative Basin Analysis (QBA). QBA is used both as a method for studying geology and a modelling tool for energy companies around the world to test their ideas about how the Earth works and importantly, to more reliably explore and extract valuable oil and gas reserves.

'I credit the excellent Earth Sciences undergraduate course at Flinders University for much of my success and career path,' says Dr Karner, who keenly remembers early mentors Flinders Earth Sciences foundation lecturers Professor Chris von der Borch and Dr François Chamalaun.

After discovering his passion for Earth Sciences at Flinders, Dr Karner took an international scholarship to the USA to do his PhD thesis at Columbia University in New York City. Many years of academic research followed at the Lamont-Doherty Earth Observatory in New York, and later sabbatical stints at universities in England, Brazil, Italy and France.

'Predicting the future of the Earth is in understanding its past. Let's hope we still have time.'

'The broad learning and practical Earth Sciences course at Flinders allowed me to first work as a geologist with Mt Isa Mines in Queensland, then as a geophysicist with the Marine Geophysics group at the Australian Bureau of Mineral Resources in Canberra,' he says.

'The total thematic approach at Flinders was front and centre with all my scientific interactions, to the point of helping to set up Earth Science departments and their curricula in other countries, such as Brazil.'

While his work is having a global impact through creating greater understanding of the Earth, Dr Karner is concerned about the future of our planet and especially global warming.

'Like the certainty of the push and pull of the Earth's tectonic plates,' says Dr Karner, 'we only have to look and learn from the lessons offered from the geological development of the Earth to truly appreciate our future.'

While the continual cycles of global cooling and warming are not new to geology, Dr Karner says the recent rate of climate change is accelerating and one of the most immediate results will be 'immense social upheaval of coastal communities and entire nations living on real estate only metres above sea level'.

He says, 'These communities will need to be resettled en masse, but to where? Already we haven't coped too well with major refugee migrations and resettlements over the past decade.'

Dr Karner urges first-world populations to unite and proactively consider the ramifications of climate change in light of our ever-decreasing resource pool.

'But this can only be accomplished by populations that are both comfortable with the predictions of science and technology in general and, in particular, respectful of geological concepts related to global warming.'

He also predicts a future in fusion and renewable energy to help meet the world's needs.

Dr Karner says, 'An oft-quoted geological mantra is, predicting the future of the Earth is in understanding its past. Let's hope we still have time.'



2018 FLINDERS CONVOCATION MEDALLIST

Dr Garry Karner was awarded a 2018 Flinders University Convocation Medal for the leadership and advancement of fundamental geological research, and the advancement of professional practice through development of the Quantitative Basin Analysis (QBA) software. He is also a relentless champion and mentor of young research scientists.

flinders.edu.au/alumni-awards

2018 Alumni Awards



Tina Karanastasis

BA '79, DipAppPsych '82

Awarded a Distinguished Alumni Award for her significant contribution and dedication to the community, in particular to those with culturally and linguistically diverse backgrounds.

When they arrived in South Australia in the 1950s, Tina's parents not only experienced language and cultural barriers, but also injustices and racism. 'I developed a strong interest in social justice and human rights, and wanted to make things better for people like my parents, as well as those who came after them.'



Dr Jenny Baker

MPHC '95, PhD(SS) '07

Awarded a Distinguished Alumni Award for her significant contribution within the field of public health, in particular the advancement of Indigenous health both in Australia and internationally, as an advisor, researcher and board member.

'I hope that I have contributed in some way to a better understanding of the nature and effects of dispossession and domination on the health of Aboriginal people, including how that can, and does, permeate a health system, especially when staff fail to stand up against racism.'



Professor Karen Reynolds

GradCertTertEd '98

Awarded a Convocation Medal for her outstanding contributions to Flinders University, South Australia and internationally through the Medical Device Partnering Program. Also as a leader in the field of biomedical engineering, as well as a champion of women in science, technology, engineering, mathematics and medicine.

By the time she was 15, Professor Reynolds' interest in all things mechanical merged with her idea of becoming a doctor, when she discovered the field of biomedical engineering.



Professor Brett Bowden

BIntSt(Hons) '01

Awarded a Distinguished Alumni Award for his significant academic contribution internationally to the fields of history, politics and international relations.

'Flinders gave me my start in the higher education sector, which I am still in twenty years later. It's nice to know that I am part of something larger, a network of similarly curious and motivated people that extends around the world.'



Associate Professor Anne Johnson AM

DipT(NursEd) '86, PhD(Med) '99

Awarded a Distinguished Alumni Award for her significant contribution to community health, through leadership, advocacy, and collaboration in health promotion and child safety projects, particularly Kidsafe SA.

'My PhD enabled me the freedom to focus my work on areas I was passionate about making a difference in.'



Jose Apollo Pacamalan

MEnvMgmt '05

Awarded a Distinguished Alumni Award for his significant contribution to the rice farming industry in the Philippines by pioneering a climate-smart agriculture system.

'The greatest accomplishment in my work is when I see poor farmers and households grow in terms of their skills and talents in farming systems.'



2018 Flinders University Alumni Award recipients. Front left: Dr Garry Karner, Tina Karanastasis, Associate Professor Anne Johnson, Dr Jenny Baker, Jose Apollo Pacamalan. Back left: Flinders University Vice-Chancellor Professor Colin Stirling, Dr Duncan Taylor, Air Vice-Marshal Dr Tracy Smart, Professor Karen Reynolds, Professor Brett Bowden, Flinders Deputy Chancellor Elizabeth Perry. Absent: Dr Richard Harris.

ACKNOWLEDGING ACHIEVEMENT CELEBRATING SUCCESS

Early this year, the 2018 Flinders University Alumni Award recipients were presented with their awards in the presence of family, friends and fellow graduates in the Mortlock Chamber of the State Library of South Australia.

Convocation Medallists Dr Garry Karner and Professor Karen Reynolds were recognised for their outstanding community contributions through their leadership, knowledge advancement, professional practice and community service.

Distinguished Alumni Awardees included Dr Richard Harris SC OAM, Jose Apollo Pacamalan, Dr Jennifer Baker, Associate Professor Anne Johnson AM, Tina Karanastasis,

Air Vice-Marshal Dr Tracy Smart AM, Dr Duncan Taylor and Professor Brett Bowden. Their contributions have benefitted the wider community through humanitarian services, professional achievement and outstanding community contributions.

Read their inspiring stories in *Encounter* magazine and online.

flinders.edu.au/alumni-awards



Nominate a Flinders graduate making a difference in their field, to their community or to the University.

2019 FLINDERS UNIVERSITY ALUMNI AWARDS

Closing date: 5pm, Wednesday 31 July

Nominate now





AVM Dr Tracy Smart AM

MAKING MEDICINE AND PEACEKEEPING HER MISSION

A lifetime of service to medicine within the Australian Defence Force

STORY BY: LYNDA ALLEN

In 1981 Air Vice-Marshal Dr Tracy Smart AM (BMBS '87) began her medical degree at Flinders University as a painfully shy country girl.

'I was so shy that for many months I ate my lunch in the car rather than interact on the campus,' she says. 'It's hard to reconcile that image with what I do now. University made me grow into adulthood and become much more confident in life.'

In the fifth year of her degree, AVM Smart joined the Royal Australian Air Force and over the next 30 years rose through the ranks of the Australian Defence Force to become Surgeon General and Commander Joint Health, with the rank of Air Vice-Marshal.

'Here I found my Ikigai, a Japanese concept that means "reason for being"—the intersection between what you are passionate about, what you are good at, what the world needs, and what you can get paid for,' says AVM Smart.

A career highlight for AVM Smart includes serving as Aeromedical Evacuation Coordinator as part of the 1995 Australian Services Contingent to the United Nations Assistance Mission in Rwanda.

She says, 'I look at how Rwanda has emerged from its dark days of genocide to now being one of the most progressive countries in Africa, and I reflect that we really did make a difference.'

AVM Smart was the Investigating Medical Officer in the fatal RAAF F-111 accident investigation in Malaysia in

1999 (for which she was awarded a Chief of Air Force Gold Commendation), and Chief Health Officer in the Peacekeeping Force Headquarters in Timor-Leste in 2002. She also commanded all RAAF operational health elements from 2004 to 2007.

In addition to her professional leadership, AVM Smart is a notable leader in Lesbian and Gay rights, and has led the Australian Defence Force contingent at the Sydney Gay and Lesbian Mardi Gras.

'My Flinders degree was the fundamental building block for my career. The modern approach to medical training at Flinders helped me with broader skills such as problem solving, flexibility and taking a multi-disciplinary, whole-of-person approach to patients.'

2018 FLINDERS ALUMNI AWARD

Air Vice-Marshal Dr Tracy Smart AM has dedicated 34 years of service to medicine and to the Australian Defence Force, including important peacekeeping missions around the world. She was awarded a 2018 Flinders University Distinguished Alumni Award for her outstanding leadership and service to medicine within the Australian Defence Force.

flinders.edu.au/alumni-awards

SOLVING CRIME THROUGH MATHEMATICS & SCIENCE

STORY BY: TANIA BAWDEN



Dr Duncan Taylor

Dr Duncan Taylor (BTech(Forensic&AnalyticalChem) '01, BSc(Hons) '02, PhD(Biol) '07) loves nothing more than using mathematics and molecular science to solve crime in the community.

Dr Taylor's curiosity for forensic problem-solving arose when he began studying at Flinders University. 'Flinders offers a world-class forensic course,' says Dr Taylor. 'It was the first opportunity I had to plan, problem-solve and adapt within a large-scale project.'

The mild-mannered Flinders science graduate is now seeing his work in forensics deliver more reliable and objective expert testimony in court cases around the world.

Principal Scientist of Forensic Statistics at Forensic Science SA for the past 14 years, Dr Taylor has helped to create and develop STRmix™, a specialist software that analyses DNA profiles, even from small amounts of DNA or complex mixed samples.

Developed in conjunction with Dr John Buckleton and Dr Jo-Anne Bright from New Zealand's Institute of Environmental Science and Research, the software interprets increasingly complex DNA profiles against databases, combining molecular biology and population science to provide greater intelligence to police.

From cold case unsolved crime, to crime scene transfer of DNA, the software can analyse DNA profiles, search databases or use familial searches to break new ground

in solving the most complex crimes, including serial rape and murder cases.

With the software being used widely in the Australian and New Zealand legal systems, the Australasian standard for DNA interpretation is expanding on international jurisdictions. It is now in use in up to 50 labs in the USA and Canada, including the FBI, US Army and the Californian Department of Justice.

With his Flinders and Forensic Science SA colleagues, Dr Taylor has recently co-written a crowning paper, 'The first Australian conviction resulting from a familial search', in the *Australian Journal of Forensic Sciences*.

2018 FLINDERS ALUMNI AWARD

Dr Duncan Taylor was awarded a 2018 Flinders University Distinguished Alumni Award for his significant contribution to the field of forensic evidence, in particular to the development of DNA interpretation software, which has had a considerable impact on the discipline of evidence interpretation and consequently on the provision of justice.

flinders.edu.au/alumni-awards



Opinion

PROFESSOR TARA BRABAZON AM

Professor of Cultural Studies and
Dean of Graduate Research,
Flinders University

TRUMP, BREXIT AND CHRISTCHURCH TERRORISM

Why Education Matters

A female prime minister, her tired and distraught face wrapped in a hijab, mourns with New Zealanders in a mosque. Another female prime minister, clad in leopard print shoes and chunky jewellery, conducts her version of a game show: Deal or No Deal (Brexit). A New York real estate mogul turned president shakes hands with a North Korean leader, while disrespecting – through tweet and policy – the neighbouring allies of Canada and Mexico.

Irrational. Disturbing. Odd. Violent. Confusing.

Fraying the fabric of our history.

The questions thunder with urgency: How could Donald Trump be president of the United States? Why did the majority of English voters – rather than Welsh, Scottish and Northern Irish citizens – act against their best interests and decide to leave the European Union?

To answer these unpopular questions (about populism) it is not surprising that I summon an unpopular theory. Jean

Baudrillard was the enfant terrible of postmodernism. For those who came in late, postmodernism is a catch-all term used by shock jocks to describe any theory or concept they do not understand. Baudrillard remains much more than a straw (postmodern) man.

Late in his life and career, Baudrillard thought about power, summoning what he described as the 'double refusal'. This phrase recognised a leader's refusal to lead, and the subject's refusal to be led. As Baudrillard wrote so emphatically, 'Power itself is an embarrassment and there is no one to assume it truly.'

Australia's revolving-door prime ministership is the exemplar of this maxim.

Best revealed in the embarrassment of the successful Brexiteers and the snap resignation of David Cameron, we are seeing a refusal to dominate and a refusal to be dominated. The double refusal provides a framework to understand the irrationality – and denial – of power.

Brexit and Trump's election are disconcerting and ignorant moments. There is something sordid and impotent in these victories. The xenophobia is too overt, distasteful and grotesque. Power is – indeed – an embarrassment.

What became clear through Theresa May's aphorism 'Brexit means Brexit' was that the repetition of a noun does not increase its clarity.

David Frum noted similar tendencies through the Trump presidency. He argued that, 'The thing to fear from the Trump presidency is not the bold overthrow of the Constitution, but the stealthy paralysis of governance; not the open defiance of the law, but an accumulating subversion of norms.'

From Coventry to Christchurch, from Stoke to Sydney, these 'subversion of norms' truncate the space for thinking and reflection, focusing instead on panic shopping as if the zombie apocalypse is upon us, and participating in democracy by clicking 'like' on a friend's Facebook post.

For Trump supporters, the choice was clear. The pro-American, 'Make America Great Again' candidate was anti-globalisation, anti-foreigners, and mocking of the feminine and the different. Through fake news and fading civility, it is easy to blame 'outsiders' and disrespect the informed, intelligent and educated.

But the salve for xenophobia and terrorism is reading and learning, rather than easy answers to difficult questions.

More is required from those of us who have had the privilege to gain entry to higher education. Universities matter to our national and international conversations as the level of education was a determinant of a Trump voter.

Trump was a figure of nostalgia. Globalisation in one country – observed through the starkly separated lives of the Rust Belt and Silicon Valley in the United States of America, or Sunderland and Brighton in the United Kingdom – can explain the differentiation in voting patterns for Trump and Brexit.

The salve for xenophobia and terrorism is reading and learning, rather than easy answers to difficult questions.

There are deep, wide and ill-focused emotional forces to understand, including anger and resentment. The 'dignity' of work was shredded by the Global Financial Crisis, where affluent white men were prepared to risk the global economy for personal profit.

Why does education matter? Education is integral to understanding why easy nationalist solutions soothe the brittle economic reality of globalisation. Our universities have never mattered more than in this moment of the double refusal.

Twitter is not the problem. Fake news is not the problem. A lack of information literacy to enable

enlightened citizenship is the weeping wound of our lacerated body politic.

Now is the moment for scholars to commit to thought leadership. To listen, reflect and dialogue. To inspire, motivate and transform. To value evidence, history, debate and interpretation.

It is time. Time to read. Time to think. Time to sit in quiet reflection.

Now is the moment for scholars to commit to thought leadership. To listen, reflect and dialogue. To inspire, motivate and transform. To value evidence, history, debate and interpretation.

The university remains the central repository for a citizenship of learning, intellectual generosity and compassion.



PROFESSOR TARA BRABAZON AM

Professor Tara Brabazon AM is the Dean of Graduate Research and Professor of Cultural Studies at Flinders University. Earlier this year she was awarded Member in the General Division of the Order of Australia for significant service to education, particularly to graduate and cultural studies. Professor Brabazon is the author of 18 books and more than 150 articles and book chapters. Her latest book, *Trump Studies: An Intellectual Guide to Why Citizens Vote Against Their Interests*, explores what events like Brexit, Donald Trump's presidency and the revolving-door prime ministerships in Australia mean for the future of universities, research and knowledge.

flinders.edu.au/people/tara.brabazon

OAKLANDS WETLAND COLLABORATION

STORY BY: YAZ DEDOVIC

Stormwater pollution is becoming a big problem for communities around Australia, with many forced to clean up or divert the contamination that is reducing the quality of their surface waters.

Established in 2013, the Oaklands Wetland, in the south of Adelaide, was designed to clean and supply up to 400 million litres of water each year to many parks and green spaces in the local area.

It takes three days for water to move through the wetland, where it is then injected into aquifers almost 100m below ground. From there, an 11.5km long distribution network supplies water to reserves and other open public spaces for irrigation use.

Now, through a special collaboration between Flinders University and the City of Marion, a new water education centre has been established on site.

Businesses and residents at Tonsley will be able to water green spaces, run air conditioning or even flush the toilet using water that has been filtered through Oaklands Wetland.

This is the first university-led facility in South Australia capable of conducting water related research, while offering unprecedented educational benefits for schools and, importantly, widespread community engagement.

Professor Howard Fallowfield, an aquatic microbial ecologist at Flinders, says the new centre offers Flinders PhD students and researchers the opportunity to evaluate factors affecting the stormwater which will be supplied to the nearby Tonsley Innovation District.

Businesses and residents at Tonsley will soon be able to water green spaces, run air conditioning or even flush the toilet using stormwater that has been filtered through Oaklands Wetland.

But it's the new education centre that has created an exciting hub for a wide range of community education, outreach and capacity building activities. The centre hosts tertiary and vocational students, teachers, government agencies, mature-age community members, traditional owners and community organisations, and specifically primary and secondary school students.

With Professor Fallowfield, Flinders PhD and Masters students have developed school modules aligned with the SACE curriculum, enabling teachers based at local schools to deliver STEM, Earth and Environmental Science topics on site.

'With a focus on groundwater, environmental health and ecology, the classes will be led by our PhD students who have the ability to tailor packages to the educational needs of school students in Years 9 to 12,' says Professor Fallowfield.

A classroom and laboratory for up to 25 students, a small-scale field station with direct access to the wetland, equipped with solar powered monitoring equipment, and a managed aquifer recharge scheme, provide a great opportunity for students to get practical experience in the field of environmental microbiology.

'Hopefully this positive first-hand experience in the field inspires more students to consider future tertiary education and career pathways in STEM,' says Professor Fallowfield.

Year 11 Brighton Secondary School student Josh Curtis is looking forward to getting hands-on experience with his science subjects at the wetland. He says, 'I'm interested in eco-systems and all living things so this will be a great learning experience.'

Marion Mayor Kris Hanna says, 'Students, environmental groups and researchers now have access to a new facility that will improve understanding of how to make the best use of our most precious resource.'

The centre is already bringing people of all ages closer to nature, enabling research, and engaging students and staff who have booked lessons at the wetland.

BOOK A CLASSROOM SESSION

The Oaklands Education Centre is a unique opportunity for school students to study environmental microbiology in the field. Book a classroom session or educational workshop online.

flinders.edu.au/oaklands-wetland

BRINGING
SCIENCE
to life

L-R: Nathan Stone, Josh Curtis, Professor Howard Fallowfield, Eliza Palmer, Ethan Bedford and Isabel Colton at the Oaklands Wetland

FLINDERS EARLY CAREER RESEARCHERS

Turning brave ideas into new discoveries

STORY BY: LYNDA ALLEN



Early career researcher Dr Vanessa Conn is researching the molecules that trigger acute myeloid leukaemia in children

From understanding what causes acute myeloid leukaemia to the conservation of blue whales, Flinders University early career researchers have been proving just what can be achieved with essential funding to kick-start their life-changing research.

In 2018 the inaugural Impact Seed Funding for Early Career Researchers initiative provided ten emerging researchers with \$10,000 each to commence their research projects. This support comes at a critical point in the researcher's career path – within the first eight years of completing their PhD.

Together with enabling valuable research, the grants can fuel momentum for the researcher and lead to larger projects with the capacity to attract significant grants from traditional funding agencies.

Professor Robert Saint AM, Deputy Vice-Chancellor (Research) at Flinders, says the funding is important to empower emerging researchers. 'Our Impact Seed Funding initiative aims to give our early career researchers the strong start they need to pursue research that will make a difference to how we live, our wellbeing, and the environment around us.'

Flinders graduate Dr Vanessa Conn (BBiotech(Hons) '02, PhD(Med) '06) received Impact Seed Funding to support her research into identifying the molecules that trigger acute myeloid leukaemia in children from birth to 14 years old.

While it is known that genetic changes at the DNA level cause this type of leukaemia, we still do not know what prompts the DNA to change in young children.

As an early career researcher, Dr Conn is working to solve the puzzle of the most common form of blood cancer to stop it in its tracks.

She says, 'Receiving Impact Seed Funding has allowed me to undertake a new technique to accurately count genetic molecules in blood samples, which have previously been very difficult to test.'

'As a mother I can only imagine the devastation parents go through when their child is diagnosed with cancer. Hopefully one day we can prevent it from occurring.'

Impact Seed Funding for Early Career Researchers is made possible through the support of Flinders University's valued donors. Through this support, emerging researchers are able to progress their innovative ideas and make a difference in the community.

Early investment in our researchers can unlock breakthrough discoveries, and is key to strengthening the future of research in our state.

SUPPORT LIFE-CHANGING RESEARCH AT FLINDERS

Help turn brave ideas into new discoveries – support life-changing research by Flinders University's early career researchers. 100% of your tax deductible donation will fund the important work of our emerging researchers who are making a difference in our community and creating a brighter future.

flinders.edu.au/appeal

2018

RECIPIENTS OF THE IMPACT SEED FUNDING FOR EARLY CAREER RESEARCHERS

Dr Catherine Attard is using genetic data to conserve the world's largest animal, the blue whale.

Dr Alice Clement is investigating the evolution of the nervous system of Devonian lungfish and their geographic distribution.

Dr Vanessa Conn (BBiotech(Hons) '02, PhD(Med) '06) is studying the molecules that trigger the genetic changes that cause acute myeloid leukaemia in children.

Dr Esther Erlings is assessing children's involvement and competency in family mediation situations.

Dr Oren Griffiths is measuring what our brains are paying attention to compared with what our eyes are focused on, to contribute to driver safety.

Dr Linlin Ma is investigating the use of gold nanoparticles in the imaging and treatment of colorectal cancer.

Dr Deidre Morgan is measuring how people with advancing disease are adapting to functional decline.

Dr Lua Perimal-Lewis (MInfTech(Comp) '09, PhD(Comp) '14) is empowering caregivers of people who suffer from mild mental impairment or early-stage dementia through digital support options.

Dr Rodrigo Praino is researching the impact of non-traditional approaches on voting decision-making in modern politics.

Dr David Smith (BNg(PostReg) '94, MNg(Cwk) '99, PhD(OtherHlthSc) '15) is developing new treatment options for people with borderline personality disorder.

OUR INSPIRING DONORS

*Supporting rural students
to make the transition
to university*

STORY BY: LYNDA ALLEN

Born and bred in country SA, Flinders graduate Kosette Lambert (BA(Hons) '96) and Mark Fusco have a passion for nurturing Engineering students from rural areas.

Based in the Tonsley Innovation Precinct, the wife and husband team are the driving force behind award-winning business Advanced Focus. The business provides strategy, training and engineering services to improve performance in the manufacturing, defence, environment and agricultural sectors.

Over the past three years, Kosette and Mark have supported Engineering students at Flinders University through a \$15,000 donation to the Advanced Focus Scholarship for Rural Students in Engineering.

'Both Mark and I come from rural South Australia and have experienced first-hand how challenging it can be to make the transition to Adelaide. When thinking about how we could give back to our community, supporting rural students was an obvious choice for us.'

'Both Mark and I come from rural South Australia and have experienced first-hand how challenging it can be to make the transition to Adelaide.'

The Advanced Focus Scholarship has supported Scott Lush, Eliza Watt and Reid Honan (BEng(Software)(Hons) '18) during their Engineering studies at Flinders.

'It has been great to build the relationships with the scholarship recipients on a personal level, but also to keep up-to-date with the latest thinking in engineering study, how programs are delivered, what students are

interested in, and their expectations when they enter the workforce,' says Kosette.

2018 Advanced Focus Scholarship recipient Eliza Watt is studying a Bachelor of Engineering Robotics (Honours) and a Master of Engineering (Electronics). Originally from Port Pirie, Eliza says the scholarship was a great help with her move to Adelaide to take up her studies.

'When thinking about how we could give back to our community, supporting rural students was an obvious choice for us.'

'The scholarship provided funds to support me to move to Adelaide from a rural area, allowing me to pursue further education,' says Eliza. 'This year at Flinders I have learnt so much. I have been working alongside experienced engineers and been involved in projects with major companies.'

While Kosette and Mark have enjoyed giving back and getting to know the Advanced Focus Scholarship recipients, Kosette says, 'We simply hope the scholarship gives the students the best chance of success in their studies.'

SUPPORT STUDENTS IN FINANCIAL NEED

Scholarships ease the financial burden on students and their families by supporting their relocation from rural and regional areas, enabling them to purchase necessary study resources, and covering living expenses so that they can focus on their studies, complete their degree and work towards their personal career goals.

flinders.edu.au/appeal

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CREATING PEACE IN THE PLAYGROUND

How an eight week program cut a local school's rate of bullying

STORY BY: SARAH GATES



Tony Mahar, Counsellor, Brighton Secondary School
Photos by: CJ Taylor

Almost all young people will be confronted by bullying at some point as victim, bully or bystander. With this kind of statistic, many schools are taking action, enlisting the help of child development psychologist and Flinders University researcher Professor Phillip Slee (BA(Hons) '73, DipEd '74, PhD(Ed) '83).

Bullying first sparked Professor Slee's interest when he attended a presentation on the rate of bullying in European schools by a visiting Swedish researcher. He wondered whether the same statistics applied to Australia, and created a survey to investigate the matter.

He found that bullying was also pervasive in Australian schools. More than 100,000 Australian kids are bullied daily—enough to fill the MCG football stadium each and every day.

These kids are subject to physical, emotional, cyber and exclusion bullying. The community environment and the rise of cyberbullying makes it difficult to escape—and if a child is bullied in primary school, there's a 53% chance they'll also be bullied in secondary school.

His research also found that bullying has harmful physical, social and emotional consequences. Children and teenagers who have been bullied are more likely to experience depression, anxiety and thoughts of suicide.

In 2008, Professor Slee and Dr Grace Skrzypiec (PhD(EHLT) '12), from Flinders University's Student Wellbeing and Prevention of Violence, pioneered the first version of the PEACE Pack, an eight-week intervention program designed for schools and classrooms from Reception to Year 12.

More than 100,000 Australian kids are bullied daily – enough to fill the MCG football stadium each and every day.

PEACE Pack takes a whole-of-school approach that looks at how people build relationships, and how to improve wellness, deal with negative emotions, avoid the 'bystander effect', and develop anti-bullying school policies.

It aims to teach students and staff how to stop bullying, how to deal with bullying when it occurs, how to make students feel safe at school, and how to reduce the likelihood of students joining in bullying of others.

The PEACE Pack acronym can be broken down to:

- **P**reparation and consideration of the nature of bullying
- **E**ducation and understanding of the issues
- **A**ction taken and strategies developed to reduce bullying
- **C**oping strategies for staff, students and parents
- **E**valuation, review and celebration of the program.

Back in 2014, Brighton Secondary School was worried about bullying in the schoolyard. With a 15-20% rate of bullying, Brighton had 'an average level of bullying'—meaning about one in five students reported being bullied at least once a week.

Put into action, the PEACE Pack cut down the rate of bullying at Brighton Secondary School to a low of 5%, and has maintained this low over the past four years. Independent assessments have shown the same massive improvement across all schools using the program.

Brighton Secondary School counsellor Tony Mahar (BEd '83) was responsible for bringing the PEACE Pack to Brighton. He's seeing the positive effect it is having on the kids at the school, and says the data around the program is fantastic as well.

Brighton is now in the lowest category of schoolyard bullying and they're aiming for zero bullying on campus. Others have followed in their path, with the PEACE Pack being used in more than 350 schools across Australia, Greece, Italy, Malta and Japan.

Ultimately, the PEACE Pack is all about adapting to make schools and communities safer, happier places.

Professor Slee's research has also found that the self-esteem and self-concept of teenage girls plummets from age 13 to 15, while the boys' climbs higher. So in a class of Year 8 or Year 9 girls, the PEACE Pack can be adapted to focus on these social and emotional issues.

Ultimately, the PEACE Pack is all about adapting to make schools and communities safer, happier places.

'I'm passionate about things being fair and having a good opportunity no matter who, what or where you are,' Professor Slee explains. 'I want to create a safe place for kids to be, where they enjoy doing what they are doing and they can be their best possible selves. Reducing bullying is an important part in achieving this, so I think that's a very good thing for a school to be doing.'

The PEACE Pack is making a real difference in schools around the world—and will continue to grow and adapt, as Professor Slee's research in this area is far from done.



PROFESSOR PHILLIP SLEE

Professor Slee is a psychologist specialising in human development, and the Director of Student Wellbeing and Prevention of Violence (SWAPv) at Flinders University. He has presented at national and international workshops and lectures, and published more than 100 refereed papers, 25 book chapters and 15 books.

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ACCESS TO WASHINGTON'S CORRIDORS OF POWER

Creating connections through invaluable internships

STORY BY: DAVID SLY

'The best way to learn about American politics is to live it' Flinders University graduate Sarah Flynn (BIntSt/LLB '17) knows this from experience, having been placed by Flinders as an intern in a US Congressional office on Capitol Hill in Washington DC – the epicentre of US politics.

'During my studies at Flinders, the Washington internship allowed me to make a host of invaluable connections and gain once-in-a-lifetime experiences,' says Sarah, who worked with Representative Billy Long (Republican, Missouri) in 2016. 'I would do it again in a heartbeat!'

The opportunity to work in Washington DC as part of a Flinders undergraduate or honours degree provides students with unique access to American politics and Washington's corridors of power.

Since 2000, Flinders has sent 114 students on work placements in the US Congress – the greatest presence at Washington's Capitol Hill achieved by any university outside of the United States.

Flinders now runs two Washington Internship Programs (WIPs) – a seven week program and a 17 week program.

'I have been introduced to leading thinkers from an array of disciplines, from national security to congressional reform, and my understanding of Australian-American relations and the US Legislative branch is growing daily.'

Successful applicants to Flinders' seven-week Washington Internship Programs are placed in institutions associated with the national government of the United States. This includes offices of United States Senators and Representatives, Congressional committees and public policy organisations.

The new Capital Semester Program, offered in conjunction with the Fund for American Studies, allows selected students to combine their Congressional Internship with participation in two topics at George Mason University. Over 17 weeks, these students work on Capitol Hill four days per week, and spend one day per week at George Mason University in suburban Washington.

Sarah John (BIntSt/LLB '06, PhD(SS) '14), who is now Director of Research (Web Integrity Project) at the Sunlight Foundation in Washington DC, has benefitted greatly from

a Flinders Washington Intern placement in 2005, as it paved the way for her current employment in the US.

'The internship was a transformative experience. I was a country kid who had no idea even what it meant to work in an office, let alone roam around the corridors of power in Washington. It opened my eyes to a world of possibilities,' says Sarah. 'I was emboldened by the work I got to do, and by working in an office where initiative and effort were really rewarded.'

Sarah's enthusiasm for the program still sees her actively involved. She is part of the selection committee for interns each year – along with Flinders University's Professor of American Studies and Politics, Don DeBats; Ali Lehman from Flinders College of Business, Government and Law; Charles Mahtesian, POLITICO's Senior Politics Editor; and Steve Slattery, Executive Vice President of The Fund for American Studies.

Sarah also makes time to meet each new student intern group from Flinders and welcome them to Washington.

'I want to help the interns get the full Washington DC experience,' says Sarah. 'It's a delight each year to see a new group of interns grow into their roles on Capitol Hill. By the end of their internship, so many opportunities for smart, ambitious young people have opened up to them.'

Sarah recently welcomed this year's group of Washington Interns from Flinders, including final year Bachelor of International Relations student Jack Naismith.

Jack is gaining invaluable experience as a Legislative Intern for Representative Mike Gallagher (Republican, Wisconsin). He says, 'Washington DC is the Mecca for International Relations. I have been introduced to leading thinkers from an array of disciplines, from national security to congressional reform, and my understanding of Australian-American relations and the US Legislative branch is growing daily.'

'Such exposure will be invaluable for my future career.'

The best outcomes occur for students who make the most of their placement tasks and show initiative – such as Prindon Sadriu (BIntSt '07), who undertook a Washington Internship in 2006 and is now Director of Bilateral Relations and International Organisations for the Ministry of Foreign Affairs in Kosovo.

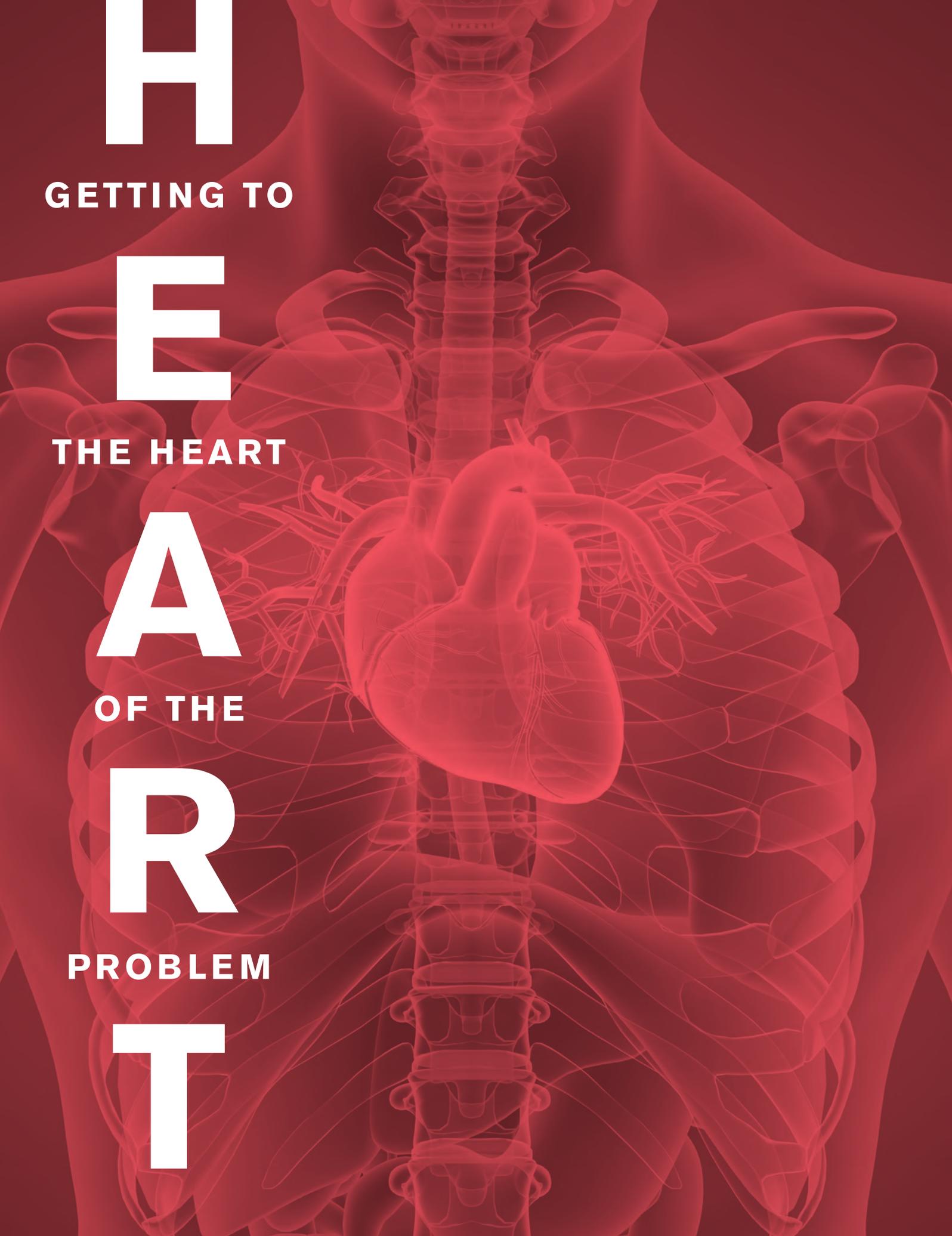


Flinders graduate Sarah John with Washington intern Jack Naismith outside Washington's Capitol Hill

WASHINGTON INTERNSHIP OPPORTUNITY

The Washington Internship Program is open to Flinders University students who have completed relevant Politics, International Relations and American Studies topics. The selection committee is interested in how the internship fits with a student's career plan. Efforts are made to link the student with their preferred area of policy. Applications for the 2020 program close 25 July 2019.

flinders.edu.au/washington



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Heart disease hotspots reveal Australia's vulnerable communities

STORY BY: BILL CONDIE

Access to care immediately following an acute cardiac event is critical for positive outcomes. While evidence shows that most lives are saved if they receive appropriate treatment within the first hour, access to services is not guaranteed, especially in remote and regional Australia.

If Flinders University's Professor Robyn Clark (DipAppSc(Nurs) '86, BNg(PostReg) '94) could see one thing happen, it would be to have all communities in Australia, no matter how remote, gain access to evidence-based health care. In particular, she wants to see under-served and disadvantaged patients and communities gain far better access to care for cardiovascular disease, such as heart attack and stroke.

'I have a health focused brain but I needed to work with people in the geography field to measure access to care then quantify it.'

In 2004 Professor Clark read a paper about access to GP health care that highlighted the problems rural and remote patients were having. She wanted to understand if the scale of the problem was the same for rural and remote patients with heart failure.

Professor Clark enlisted pioneering demography and geographical information system experts to develop a model of accessibility to specialist heart failure services. She says, 'I have a health focused brain but I needed to work with people in the geography field to measure access to care then quantify it.'

The result of Professor Clark's research is CardiacARIA (Accessibility Remoteness Index of Australia) that ranks each of Australia's 20,387 urban, rural and remote population centres by accessibility to essential services or resources for the management of a cardiac event—or where NOT to have a heart attack.

This was the first research in the world to quantify access to cardiac services. It has highlighted the problem of accessing cardiovascular disease treatment in remote areas, which has been exacerbated by demographic changes associated with so-called sea-changers and grey nomads, or through local ageing populations.

The index has had a direct impact on decision-making and service funding by local authorities in several places around the country.

'They had closed a health clinic in Shark Bay in Western Australia,' Professor Clark recalls. 'Thousands of people were coming to see the dolphins and there was absolutely nothing—zero medical services around them, even for a cut foot on the coral. As a result of us highlighting the problem, they re-opened a nursing clinic there.'

'A similar thing happened in Port Macquarie in New South Wales,' she adds. 'The town had one cardiac catheterisation laboratory, but when our model revealed a big migration of retirees, the council planners commissioned a second laboratory.'

The index has had a direct impact on decision-making and service funding by local authorities in several places around the country.

The Heart Foundation has drawn heavily on the research to build its own 'heart maps' to identify access hotspots around Australia. Professor Clark and the CardiacARIA team are now working with the Stroke Foundation to help extend the model with their expertise.

'What we want to produce for both the Heart Foundation and the Stroke Foundation are public access interactive maps where you can click on your town and it brings up all the closest and best services for you before and after a stroke or a heart attack,' says Professor Clark.

Looking to the future, Professor Clark is determined to make sure her research remains relevant to the 'real world'.

She says, 'My main focus in the next five years is to make sure that the research I've done, and the good research that others have done, is translated into practice and gets care to the people who need it most.'



Professor Robyn Clark

CardiacARIA

According to the Australian Institute of Health and Welfare, in 2016, coronary heart disease was the leading single cause of death in Australia, accounting for 19,100 deaths. CardiacARIA has led to widespread awareness of the lack of access to high-quality cardiovascular care for many rural communities. Since launching, the index has been downloaded 6,000 times.



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