


VitalConnections

2024 College of Medicine and Public Health Alumni Magazine



Flinders University is
shaping the future of
health through research,
education and healthcare

Contents

- 3 Celebrating our history and looking to the future
- 4 Record number of new NT medical students
- 5 From Science to Medicine
- 6 Celebrating 50 Years of Medicine Studies at Flinders University
- 8 New facilities enable researchers to fly higher
- 10 Health and Medical Research Building officially opens
- 11 NT's first home-grown paramedics
- 12 Flinders leads national rural doctor initiative
- 14 Indigenous pathways pave the way
- 15 Finding balance between research and raising a baby
- 16 Celebrating 40 Years of public health at Flinders University
- 17 Pursuing possibilities in public health
- 18 2023 Alumni Awardees
- 20 Emerging leader mentorship
- 21 Discovering how memories are made
- 22 Donation expands opportunities for new researchers

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Celebrating our history and looking to the future

Welcome to *Vital Connections* – your newly titled College of Medicine and Public Health Alumni Magazine (CMPH)! We're excited about this new name that encompasses our important connections with past and present staff and students, and our partners. You can read more about our new name below.

This is an exciting year for the CMPH, as we recognise the milestones of 50 Years of Medicine and 40 Years of Public Health, and the opening of our Health and Medical Research Building. Home to more than 600 medical researchers, clinicians and professional staff, this \$280 million, 10-storey landmark will transform how we understand, diagnose and treat illness.

Our rural and remote programs continue to expand, with additional places being funded by the Commonwealth and Northern Territory governments for the Northern Territory Medical Program, and the commencement of an entire medical program in rural South Australia being launched in 2025. This is a testament to the quality of the medical education we have provided to rural and remote communities that have prioritised local and Aboriginal and Torres Strait Islander students over the past 25 years – and our graduates who have made a substantial and sustained contribution to the health of Territorians and those in rural SA.

In this edition, we're also excited to share the stories of our first Darwin Paramedicine graduates, as well as highlighting the important and highly innovative research being done by the likes of Karin Nordström, who examines hoverflies to understand how the nervous system codes visual information, and Kristie Stefanoska, who is making innovative approaches to understanding the causes and treatment of Alzheimer's disease.



In October we will host our 50 Years of Medicine Gala Dinner. I look forward to welcoming you to Adelaide Oval for a night of commemoration and celebration with inspirational guest speaker Dr Anne Tonkin AO, Chair of the Medical Board of Australia and entertainment from local Adelaide band The Click.

As we honour our past and envision our future, we celebrate the accomplishments of our graduates. All of you are a fundamental part of the College's success, and we are grateful for your contributions to health, research and education.

Professor Jonathan Craig

MBChB, DipCH, FRACP, M Med (Clin Epi), PhD, FAHMS
Matthew Flinders Distinguished Professor
Vice-President and Executive Dean
College of Medicine and Public Health

Introducing **VitalConnections**

Congratulations Dr Charles Evill (MSc(Med)(Res) '80), winner of our competition to re-name the CMPH Alumni Magazine!

Inspired by the essential relationships that contribute to personal and professional growth, collaboration and the advancement of healthcare, the name *Vital Connections* pays tribute to the valuable connections we have with our students, partners and, importantly, our alumni.

The magazine will continue to serve as a vibrant platform for sharing stories, achievements and insights from the College.

Dr Evill has won a Flinders University merchandise pack for his thoughtful contribution.

Record number of new NT medical students

By Sally Lauder

A record number of 39 medical students started their journey at Flinders University in Darwin in of 2024 – a 30% increase in new students when compared to last year.

Flinders received extra funding from the Commonwealth and Northern Territory governments to expand our Northern Territory Medical Program (NTMP), the NT's only medical program.

The medical program has been running since 2011 and is taught across Darwin, Alice Springs, Katherine and Nhulunbuy. It is the only pathway for students located in the NT to study and work where they live. The NTMP is set to boost the pipeline of medical staff in the Territory for years to come.

Rural and Remote Health Deputy Dean, Professor James Smith says the program expansion is great news for the NT and its communities.

"We are delighted to welcome a record number of students this year, up from 30 in 2023 and 24 in 2022. This is an acknowledgement of Flinders University's commitment to facilitate and deliver an outstanding program in the NT, taught by local staff and trained in local facilities," Professor Smith says.

"To receive additional funding is a vote of trust from the governments, and an appreciation of our past work. To date, the program has produced more than 200 graduates and more than half of them are now in the NT workforce.

"These individuals play a massive role in the local community and Flinders is proud to equip them with the knowledge and skills to do that."

First-year NT medical student Sophie L'Estrange is grateful for the opportunity to undertake her studies in her local community. Having worked as an oral health professional for several years, Sophie appreciates the challenges that remote places bring. However, she recognises that these unique challenges can sometimes limit professional growth.

"Becoming a doctor was intriguing to me, but I never thought that I was smart enough, or I'd have to move to the city to study. It never fitted into my lifestyle or where I was at in my life stage," she says.

"With the NTMP being offered locally, I did not need to uproot my family and can plan our future in the NT where we are."

First-year NT medical students - Keara Mack, Sophie L'Estrange and Cassandra Bonner-Waia (left to right).
Photo: George Fragopoulos



From Science to Medicine: Nelson stays connected to his roots

By Oli Dubsky

Dr Nelson Rossingh's (MD '23) story is a testament to the power of passion, and the importance of staying connected to one's roots while pursuing a medical career.

Dr Rossingh became a Doctor of Medicine through the Northern Territory Medical Program (NTMP). Completing his studies in 2023, the four-year course included extensive rural placements, providing Dr Rossingh with a unique and immersive medical education. Dr Rossingh's excitement for the medical field stems from his passion for science.

"After studying biochemistry and genetics, and working in laboratory research for the CSIRO and Menzies School of Health Research, I decided to go down the medical pathway. I felt it suited my skills and interests well," he explains.

Choosing Flinders University was a natural decision for Dr Rossingh.

"I chose the NTMP because I grew up here and have lived in the Northern Territory now for more than 20 years," says Dr Rossingh.

His connection to the land, combined with his experiences in both travelling and participating in school and extracurricular activities throughout the region, made studying at Flinders the perfect fit.

"I wouldn't have had the same amount of interest if I had to study outside of the NT," he adds.

Throughout his medical education, practical placements have played a crucial role in shaping Dr Rossingh's understanding of medicine.

"I have had multiple placements in rural areas throughout the degree, with 26 weeks in Katherine and six weeks in Nhulunbuy, which I am very grateful for."

These experiences have deepened his appreciation for remote medicine and the unique challenges faced by healthcare providers in these areas.



Dr Nelson Rossingh at his graduation in November 2023. Photo: George Fragopoulos

Currently working as an intern at the Royal Darwin Hospital, Dr Rossingh is passionate about pursuing a career as a rural generalist or GP.

"It means I can move around within the NT and make a meaningful contribution to primary healthcare," he explains.

This career path aligns perfectly with his desire to serve the communities he knows and loves.

Reflecting on his journey, Dr Rossingh offers valuable advice to prospective students; "Medicine is a marathon, not a sprint. Take time and self-care every step of the journey instead of trying to get to the finish as soon as possible."

"I am also very grateful to all the NT staff. I wouldn't have finished the degree without their support," he says, highlighting the importance of community and mentorship in his success.

Celebrating 50 Years of Medicine Studies at Flinders University

This year, Flinders University is celebrating 50 years of delivering medical training to generations of doctors who are caring for patients, advancing research, transforming healthcare and educating the next cohort of doctors and health professionals, in South Australia, the Northern Territory, across Australia and globally.



**Emeritus Professor
Chris Baggoley AO**

BSocAdmin '84, BMBS '80,
DUniversity '12

By Kate Holland

Professor Chris Baggoley AO's drive to impact human health led him to pursue a medical degree at Flinders University. Born in Melbourne, he initially graduated with honours in veterinary science. However, he felt a stronger calling in medicine, reflecting, "I decided when I was doing my veterinary science course that I would gain more personal satisfaction, and do more for society, if I pursued a career in medicine."

Professor Baggoley excelled in emergency medicine, eventually becoming Chief Medical Officer for South Australia and Australia. He played an influential role in the management of infectious disease outbreaks and contributed to global health through the World Health Organization, notably during the MERS and Ebola crises.

After retiring in 2016, he continued to stay active in the health sector despite battling pancreatic cancer.

His contributions earned him numerous honours, including Officer of the Order of Australia. Professor Baggoley attributes his success to mentorship and institutions like Flinders highlighting the importance of effective communication in healthcare.

Photo: Brenton Edwards



Professor Tom Snelling
BMBS '98

By David Sly

Professor Tom Snelling's time at Flinders University inspired him to excel in medical practice and research, focusing on improving outcomes for those in need. Now a Professor of Infectious Diseases at the Children's Hospital at Westmead, New South Wales and a leader at the University of Sydney, he finds working with children deeply humbling. "Medicine has given me a good appreciation of the extreme hardships encountered by many families," he says.

Initially inclined towards engineering, Professor Snelling switched to medicine after a chance call from Flinders. Influenced by such professors as Jack Alpers and Gary Kneebone, he developed a strong interest in internal medicine and paediatrics. His career includes work in Alice Springs, Darwin, Perth and Sydney, specialising in paediatric infectious diseases and vaccination.

In Sydney, he established a research team, emphasising that, "every patient encounter is an opportunity to learn."

Professor Snelling's research aims to improve clinical study designs and evidence application, taking a meta-research approach. He is proud of his unconventional career path and hopes others can learn from his experiences.

Photo: Nakita Pollock



Associate Professor Emma Kennedy

BMBS '93

By David Sly

As Director of Flinders University's medical program in the Northern Territory, Associate Professor Emma Kennedy is dedicated to improving healthcare for Indigenous patients through better communication and trust.

She highlights severe health inequities in Indigenous communities and stresses understanding patients' perspectives as crucial for positive health outcomes.

"It's only improved avenues of information and trust between health professionals and patients that lead to the best choices," she says.

Associate Professor Kennedy's decades of experience as a clinician in the NT inform her approach to bridging the gap between medical education and effective health service delivery, particularly for Indigenous communities. Her person-focused care model at Flinders NT teaches that acknowledging patients' agendas is essential for positive outcomes. She emphasises cultural awareness in medical practice, especially concerning Aboriginal health.

Associate Professor Kennedy is committed to retaining medical graduates in the NT, ensuring they apply their regionally focused knowledge to benefit local communities. By building trust and understanding, she aims to improve health outcomes for all Territorians.

Photo: Nakita Pollock



Dr Ruth Mitchell

BMBS(GradEntry) '07

By Kate Holland

Dr Ruth Mitchell's path to medicine was shaped by early inspirations and a commitment to service. Born in Peru, she was inspired by Dr Nathaniel Davies and her parents' dedication to community service, which fuelled her interests in zoology, political science and activism.

In 2004, as a first-year medical student at Flinders University, Dr Mitchell attended the International Physicians for the Prevention of Nuclear War Congress in Beijing, a transformative experience that led her to co-found the International Campaign to Abolish Nuclear Weapons, which won the Nobel Peace Prize in 2017.

Her passion for neurosurgery ignited during a fourth-year rotation, fascinated by the brain's complexity. She currently practices at Sydney Children's Hospital and Prince of Wales Hospital New South Wales, advocating for diversity, inclusion and doctors' wellbeing. Reflecting on her journey, Dr Mitchell emphasises the importance of mentorship, advising others to, "choose your path for your reasons, then gather a crew of mentors who can speak to your life and keep you on track."

Photo: Maja Baska



Dr Angella Campbell

MD '21

By David Sly

Dr Angella Campbell's journey to become a general practitioner, inspired by a desire to serve remote communities, highlights the significant impact of Flinders University on her professional and personal growth.

Despite a fulfilling career as a nurse and combat medic, she faced self-doubt as an Indigenous woman pursuing elite qualifications. The support from Flinders, particularly through the Flinders University Indigenous Entry Stream program and Yungkurinthe Student Engagement, was crucial.

"I always had the desire to become a doctor," says Dr Campbell. "But I lacked the confidence and self-belief to take that decisive step. The crucial aspect that finally made me commence studying medicine was having necessary access and support at Flinders University."

Her achievements include receiving the Soldiers Medallion for exemplary service and the Outstanding Soldier of the Year award. Now working at Noarlunga Hospital's Emergency Department South Australia, she also mentors Aboriginal and Torres Strait Islander students, helping them navigate the challenges of medical education.

Photo: Brenton Edwards



Read more about our inspirational alumni and how you can be involved in the celebrations for 50 Years of Medicine at Flinders: flinders.edu.au/50years

Professor Karin Nordström
with her hoverflies in her new insectary.
Photo: Brenton Edwards

New facilities enable researchers to fly higher

By David Sly

Moving her laboratory and research team into the new Health and Medical Research Building (HMRB) at Bedford Park has Professor Karin Nordström particularly excited, as she believes her innovative neuroscience research will benefit greatly from the advanced facilities and fresh working environment.

Professor Nordström examines hoverflies to understand how the nervous system codes visual information, and the Motion Vision Group (MVG) she leads will be based in a new insectary, which will house her hoverfly motion vision lab.

“It’s a beautiful space and it’s going to be great working in there,” says Professor Nordström.

“I also really love the colour scheme of the office spaces, with subtle integration of colour tones – not only on different floors, but also between neighbouring areas. To be located in such a great facility, we’ll move forward in our work with such great confidence.”

Professor Nordström and her team have already achieved fantastic results from their novel research, providing a tantalising fresh glimpse into neuroscience. In their new laboratory, the MVG is poised to achieve much more in this field, using a range of techniques – electrophysiology of single neurons in the hoverfly nervous system, quantitative behaviour and free flight experiments.

It will help that the new lab space has three dedicated rearing chambers with controlled light, humidity and temperature. This will ensure absolute consistency and avoid any power failures or disruptions which can occur in older buildings.



Once the team completed its relocation to the new HMRB facility in May, the seven team members immediately resumed work on projects that include the use of a virtual reality arena for hoverflies, where flies have the freedom to explore a digital environment, rather than have image selection imposed on them.

It’s a novel idea for neurology research that had its genesis in trying to spin existing ways of recording hoverfly behaviour. “When we design experiments to test and record hoverflies, we typically dictate what the fly sees, and we record the outcomes. I really wanted the fly to control how it moved and what it wanted to see in these experiments, in the same way a human would choose their views when they are wearing virtual-reality goggles,” explains Professor Nordström.

“It’s taken a few years to get this system to work, but now it’s ready and we are keen to explore this idea further.”

Initial results from this new technique have offered surprises – including that hoverflies are especially curious about exploring a virtual environment in great detail. “I wasn’t even sure whether they would navigate within a virtual world,” says Professor



Nordström. “I thought they would just ignore the virtual scenery and fly in clear space, but the opposite appears to be true. They interact with the virtual environment – and that’s a confirmation that it was worth the time we invested in developing this. They don’t get bored. They’re engaged with their virtual surroundings.”

Recording such responses to target motion opens even more questions about how hoverflies perform optimally, despite carrying small brains and low-resolution compound eyes.

“We know that hoverflies are highly sensitive to movement, so to understand how they visualise the world by the way they fly and position their bodies to capitalise on their decision-making will help us understand why they are so efficient at what they do,” says Professor Nordström.

“It’s going to be great to do this work in the HMRB, alongside other great teams of researchers and scientists. It’ll be very exciting to interact with new neighbours – and with so many small breakout areas and nooks dotted throughout the new building, it will be fantastic to strike up many more new conversations, to share and exchange our thoughts and ideas.”

Health and Medical Research Building officially opens

By Natali Nagy

In mid-June, Flinders University Vice-Chancellor Professor Colin Stirling was joined by Prime Minister Anthony Albanese, South Australian Premier Peter Malinauskas and hundreds of invited guests to officially open the Health and Medical Research Building (HMRB).

Professor Stirling said the HMRB is a game-changer in medical research, turning breakthrough research and clinical trials into real benefits for Australians in disease prevention and treatment.

“Flinders is redefining healthcare,” said Professor Stirling. “The HMRB is a major leap forward, building on Flinders’ 50-year legacy of health innovation. It supports our rapid research growth and paves the way for discoveries that solve challenges and improve lives.”

With space for more than 600 medical researchers, clinicians and support staff, the \$280 million, 10-storey landmark is poised to tackle the most pressing health challenges of our time - from chronic diseases and Indigenous health disparities to pioneering treatments for diabetes, infections and cancers.

HMRB is equipped with state-of-the-art cell imaging equipment and one of South Australia’s largest banks of PC2-rated physical containment labs across five floors, together with BC2 biosecurity containment zones. The building is one of Australia’s most sustainable research institutions and is the first medical research facility in the world to achieve a coveted platinum rating for best-in-class digital connectivity.

Prime Minister Albanese said Flinders’ HMRB will be making breakthroughs and changing lives for the better for many generations to come.

“When I speak about a future made in Australia – this is what it looks like. Australian research, hard work and ingenuity keeping us at the global cutting edge.”

- Prime Minister Anthony Albanese

Premier Peter Malinauskas said boosting the quality and volume of research undertaken in South Australia is fundamental to increasing the complexity of the state’s economy.

“This is the key to unlocking a better standard of living for all South Australians. To this end, Flinders University is a leader. It has posted the strongest growth rate in research income of any university in the country across the past five years,” said Premier Malinauskas.



“The research undertaken at this incredible new facility will help save lives.” - Premier Peter Malinauskas

Uncle Mickey Kumatpi Marrutya O’Brien conducted the Welcome to Country at the event, and guests were able to tour the HMRB’s world-class, life-changing research facilities.



Premier Peter Malinauskas, Louise Miller-Frost MP, Prime Minister Anthony Albanese, Chancellor John Hood and Uncle Mickey Kumatpi Marrutya O’Brien at the official opening of Flinders’ HMRB.



Our 2023 graduates from the NT.
Photo: George Fragopoulos



Bachelor of Paramedicine graduate, Storm Young.
Photo: George Fragopoulos

NT's first home-grown paramedics

By Sally Lauder

In December 2023 Flinders University celebrated its first paramedicine graduates in the Northern Territory, leading a cohort of 20 aspiring paramedics seeking to qualify over the next two years and provide a welcome boost to frontline ambulance services across the Territory.

Flinders University Vice-Chancellor Professor Colin Stirling says the University's leadership in offering the paramedicine course reflects its deep commitment to rural and remote health.

"For more than 25 years, Flinders has been a part of the Territory, delivering courses developed in the NT, for the NT," Professor Stirling says.

"In partnership with communities, we've adapted and innovated to ensure our students have the opportunity to study in areas of demand. This is especially true of our paramedicine offering, which is proudly graduating NT's first homegrown paramedics.

"We know that students who study in a rural setting are more than three times as likely to choose to work in rural areas. By graduating doctors, paramedics and health professionals in the Territory, we're empowering people to make a difference in their communities and contribute to healthier lives.

"It's why we're determined to remain a national leader in producing rural health professionals who are exceptionally prepared for the challenges and rewards of rural and remote practice."

Professor Robyn Aitken, Flinders University's Dean of Rural and Remote Health, says the University's healthcare graduates are not only skilled and knowledgeable, but are also trained specifically for an NT context with an emphasis on cultural safety. They are well-equipped to meet the diverse and complex health needs of the people in the Territory and beyond.

"I congratulate our inaugural cohort of paramedicine graduates in the NT, who will be providing much-needed support for local health services and who should be very proud of their achievements," Professor Aitken says.

Storm Young (BParamedicine '23) says the course was the first step in what she hopes will be a lifelong career in health.

"Growing up in a small rural town where volunteers, including my mum, played a vital role in community wellbeing instilled in me a deep respect and love for first responders. Paramedicine is exciting because it's a dynamic and ever-evolving profession that's vital for community health," says Ms Young.

"The hands-on, practical components of my studies have been particularly exciting. Clinical placements have been invaluable in bridging the gap between theory and real-world application. These experiences have allowed me to put into practice what I've learned in the classroom, further enhancing my skills and confidence."

Flinders leads national rural doctor initiative

By Elspeth Radford

Flinders University has secured the largest share of a new federal program that aims to increase the number of medical students studying in regional Australia.

The University will receive \$19.7 million in Commonwealth funding to establish a new rural medical program, with up to 46 medical student places available per year from 2025.

This will enable Flinders to offer a four-year Doctor of Medicine degree that can be completed entirely in regional South Australia, building on more than 25 years of experience in delivering first-class medical education in rural and remote communities.

John Brennan was a geologist before studying medicine at Flinders, and as part of the Doctor of Medicine Rural Stream program, he spent his third year in the Hills Mallee Fleurieu region.

“The combination of the opportunity for one-on-one learning with a broad range of medical staff, and exposure to a wide variety of clinical presentations, makes it an outstanding learning opportunity,” he says.

“There are so many different pathways to medical school. It’s not only about getting a near-perfect ATAR and jumping straight into medicine from high school.”

John believes that the post-graduate entry to medicine at Flinders is beneficial. “You get students with a wider view of the world and more life experience.”

Flinders University Vice-Chancellor Professor Colin Stirling says the Rural Medical Training grant is recognition of Flinders’ national leadership and innovation in rural and remote health.

“Flinders University is a proven leader in producing rural doctors who are well prepared for the challenges and rewards of rural practice,” Professor Stirling says.

“We know that students who study in the country are more than three times as likely to choose to work in rural areas compared to their city-based peers.”

- Flinders University Vice-Chancellor Professor Colin Stirling



Dr James McLeod. Photo: Elspeth Radford

“This funding will allow us to expand opportunities for medical students to complete their four-year degree by studying entirely in rural South Australia, further increasing the likelihood of them choosing to work in rural practice after graduation.”

Flinders has been awarded 25 percent of the new medical places, the largest allocation to any single institution, with the rest distributed among five other universities across five different states.

Professor Stirling says the funding will provide new teaching and learning facilities, student accommodation, and expert local academic and professional staff across Flinders’ SA regional footprint, which includes the Barossa, Renmark, Berri, Murray Bridge, Victor Harbor and Mount Gambier.

“Flinders University had always been a pioneer in medical education and this new investment from the Commonwealth is a testament to our ongoing commitment to the health and wellbeing of regional communities,” says Professor Stirling.

Dr James McLeod (BMedSc '06, BMBS(GradEntry) '09) loved his clinical year as a student in the Riverland, and returned as a GP and clinical educator based in Renmark.



Dr Sarah Willoughby.
Photo: Image supplied



John Brennan. Photo: Image supplied

"You don't just assess and treat patients and send them off never to be seen again. You follow them up and see if your treatments have worked, analyse their results and work with them to help fix their problems. Being interested in agriculture and the great outdoors, I find I relate very well to my patient base and often start a consultation asking about fishing tips or discussing local farming issues," he says.

"I love teaching and I believe I have one of the most interesting jobs going around, so I really want to get others involved. I find it fun and challenging as my pupils are rather clever and they always ask tricky questions. They keep my knowledge base sharp and keep me enthusiastic about my profession. I am hopeful that I can influence students to consider a career in rural medicine, either as a rural general practitioner or as a specialist who will visit rural areas."

Medical students who are part of the rural program benefit from early and sustained exposure to rural health settings, learn alongside other health disciplines in interprofessional teams, and develop strong connections which enhance their professional and personal development.

Graduates are highly sought after by employers and make a significant contribution to the health and wellbeing of rural Australians.

The SA Rural Medical Program will give opportunities for rural students to study medicine without leaving the regions.

Dr Sarah Willoughby (BMedSc '08, BMBS(GradEntry)'11), originally from Keith in the South-East of SA, left home to pursue studies for her chosen career. She spent her third year as part of the Parallel Rural Community Curriculum program in the Greater Green Triangle, and following her post-graduate years, returned to Naracoorte as a GP and clinical supervisor. Dr Willoughby is keen to see more rural students study medicine at Flinders.

"There are more opportunities to complete your studies rurally, and it's worth it in the end when you get to come home as a qualified doctor and really make a difference," she says. "The SA Rural Medical Program will give opportunities for rural students to study medicine without leaving the regions."

"We thank the Federal and South Australian governments, health service partners and our communities for their continued support and recognition of the excellence of our medical offerings," Professor Stirling says.



Indigenous pathways pave the way

Jordyn Tomba and Peter Lacey have benefited from the Flinders IES.
Photo: Alexander Robertson

By Sally Lauder

Flinders University is reporting record growth in Indigenous students, assisted by our unique Indigenous Entry Stream (IES).

Now in its 12th year, the program is offered to Aboriginal and Torres Strait Islander students wishing to study medicine, including those who do not have a valid Graduate Medical School Admission Test (GAMSAT) score.

It provides an opportunity for students to enter the Doctor of Medicine or Northern Territory Medical Program after completing an online course and week-long intensive workshop as preparation for study.

Aboriginal and Torres Strait Islander doctors represented less than 0.44 percent of Australia's registered medical workforce in 2019 (source: AIDA) – and many more are needed to help close the gap in Indigenous healthcare.

Research has shown that Indigenous health staff appear to sustain better connection, rapport and trust with Indigenous patients, reduce their anxiety and enhance communication.

There is evidence to suggest that Indigenous health workers may help to improve attendance at appointments, acceptance of treatment and assessment recommendations, reduce discharge against medical advice, increase patient contact time, enhance referrals and improve follow-up.

Kath Martin, Program Director, Aboriginal and Torres Strait Islander Pathways in Medicine, says the program offers Indigenous students the chance to explore whether they want to pursue a career in medicine.

“The Indigenous Entry Stream is an alternative pathway with proven success in attracting Aboriginal and Torres Strait Islander peoples who perhaps wouldn’t have considered the possibility of becoming a doctor.”

- Kath Martin

“The Indigenous Entry Stream offers support and weekly meetings to assist students in managing the heavy workload. Those who successfully complete the IES program and fulfil other selection criteria are then made an offer to study the Doctor of Medicine,” says Kath.

“If we can impact the medical workforce of the future by training more Aboriginal and Torres Strait Islander people as doctors who provide greater cultural safety for First Nation’s patients, that’s going to help to close the gap and bring much better outcomes for their community.”

As part of the program, the IES participants are introduced to the cultural, academic and social support staff and programs available to them, should they progress to studying medicine.

Mature-age student Peter Lacey benefited from the IES and was accepted to study medicine at Flinders this year.

“I wanted to study medicine years ago, but I didn’t feel good enough or smart enough,” says Peter.

“IES was great because it gave me a glimpse into what studying medicine would really be like. It gave me the confidence to reconsider a career in medicine. The support provided through IES has been incredible.”



Dr Kristie Stefanoska outside the labs at the new Health and Medical Research Building with her son Kliment.
Photo: Brenton Edwards

Leading crucial research into Alzheimer’s disease while simultaneously starting a family may seem a near-impossible juggling match, but Dr Kristie Stefanoska says it’s still possible – especially with the help and support of her colleagues and leaders at Flinders University.

“Women working at the forefront of medicine can find it incredibly hard to balance being a new mother with demanding research commitments, but I’ve learned that moving forward with everything hasn’t become a crisis moment in my research career,” she says.

Dr Stefanoska, an expert in neuroscience, neurobiology and protein biochemistry, is a Research Fellow in dementia and deputy-lead of the molecular dementia and memory research lab at Flinders Health and Medical Research Institute. Her work since coming to Flinders in 2021 from Sydney, supported by The Scientia Henry Brodaty Fellowship (Dementia Australia), has brought innovative approaches to understanding the causes and treatment of Alzheimer’s disease.

“It’s such a complex disease because of the sheer number of underlying conditions that can cause it, and because of the direct and indirect impact on people and the health system. The need for a cure is more urgent than ever,” says Dr Stefanoska.

Her attention focused on tau, a small protein found mostly in the messenger cells of the brain, called neurons. “Like most proteins, tau is vulnerable to genetic mistakes and changes in its environment. These factors can make tau no longer fit to carry out its usual job, a problem associated with many brain diseases.”

In Alzheimer’s disease, a build-up of the abnormal tau leads to “tangles” that cause cell damage and inflammation, contributing to neurodegeneration.

Finding balance between research and raising a baby

By David Sly

“These tangles are not effectively disposed of through the cells’ waste removal system and the build-up damages the cells’ super-highway. Tau can take on many different forms depending on its content. We asked what triggers the creation of these thread-like structures and discovered specific points on the tau protein - called p-tau - that change early-on and can cause a chain reaction of further changes. If we remove or silence these specific points on tau, it puts a break on tau toxicity and can even prevent or slow down dementia.”

“With this knowledge, our next challenge is to translate these findings into a treatment or biomarker platform. We are currently exploring two possibilities: one is using a gene therapy approach where we will introduce a healthier tau molecule, and the second will be vaccine development where we will remove the disease-associated tau from the body.”

As one discovery leads to the next essential area to be explored, there is significant pressure on Dr Stefanoska to maintain a demanding research schedule – in addition to the demands of a new family. In March, she gave birth to her first son, Kliment, and is currently on maternity leave – but she’s still working at home drafting her next round of grant applications, to ensure necessary funds that will continue her current research projects.

“I’m learning to juggle multiple things at once,” says Dr Stefanoska. “As a female early career researcher, support from mentors at Flinders University has enabled me to still feel connected and for my career to be supported while I’m on maternity leave. It gives me the confidence to keep moving forward with this important project. It’s my hope that my research will enable earlier and more effective diagnosis of Alzheimer’s disease, and hopefully provide new disease-limiting treatments that can slow progression and retain vital brain function.”

Recognising 40 years of public health at Flinders University

For Professor Jacqueline Bowden, Interim Discipline Group Lead of Public Health, Flinders University working in public health is a broad and rewarding career.

Originally studying to become a psychologist, after working within the epidemiology branch at SA Health, Professor Bowden came to realise the important role public health can play in improving the lives of populations, both nationally and internationally.

"I studied a Master of Public Health and PhD. I am still thankful I chose this career path, because you can work across such a diverse range of roles – from research to advocacy, to practice, to government – and they all have their benefits," says Professor Bowden.

When Flinders developed its first public health courses 40 years ago, the primary focus was controlling infectious diseases, reducing maternal and child mortality, motor vehicle safety, and starting to tackle the rise of chronic diseases.

Over the past four decades there have been significant changes in public health, driven by advancements in science, technology, policy and our understanding of community health. Global disease surveillance, big data and analytics, vaccine development, digital health, equity, and environmental health are now important areas of focus.

"We are proud that our course topics and content are at the forefront of topical areas in public health."

Professor Bowden believes Flinders stands out from other educational institutions for many reasons.

"One, because of the friendly and approachable nature of our education team. We are also conducting some very exciting world-leading research which is exemplified by the increasing number of grants won by our very talented researchers and academics," says Professor Bowden.

"The research we undertake is vital in informing policy makers, and developing public health interventions that have the bigger aim of improving health for all."



Professor Jacqueline Bowden. Photo: Brenton Edwards

"We have eight diverse teams within public health, including an expert health economics team, an international point of care testing team doing frontline work in remote communities, the National Centre for Education and Training on Addiction (NCETA), and many First Nations' researchers. It's exciting that through studying public health at Flinders, you can also undertake a placement, and may even get a job at the University in one of the teams.

"I'm so pleased that we can host students within the NCETA where my research team is based. This enables students to get a sense of what it is like working in a research environment and ways they can contribute to research."

For Professor Bowden, connecting with students and helping them achieve their career aspirations within public health is a highlight of her role.

"I feel so privileged to work in public health at Flinders, which is educating the next generation of public health professionals. I can't wait to see the impact that the next 40 years of public health at Flinders will have."

The College of Medicine and Public Health will officially celebrate 40 Years of public health with an event in 2025. Details will be shared with alumni closer to the date.

Pursuing possibilities in public health

By David Sly

Tina Hart has an ambition to promote good health to the wider community – and studying for a Bachelor of Public Health at Flinders University will help her realise this important goal.

Tina views this as an opportunity to pursue her ideal professional role, having previously worked in both the construction industry and education in the UK and Hong Kong, before emigrating to Australia with her family in 2017. “I was working in a school with children who had high trauma-based backgrounds, and I found it very frustrating that I wasn’t in a position to do much to help the vulnerable families that I came across. I thought that going back to study for a degree could change that,” she says.

She came to Flinders to study for a Bachelor of Public Health, respectful of the University’s rich 40-year history of success in developing public health education.

“I had a quite limited idea about what public health includes, but once I started studying, I really had my eyes opened about how big the public health sector is. With every subject I study, I’m introduced to more fresh ideas and see public health work possibilities that I’d never considered before.”

Coming to the course as a mature-age student, 46-year-old Tina says she grasped her opportunity to study at university for the first time. “It’s not easy as a mature-aged mother with a family to find enough time to devote to study, but I’ve made it happen because I’m focused and driven.”

Now in her third and final year of study, Tina recently did a work placement with the National Centre for Education and Training on Addiction (NCETA). It proved especially challenging, as Tina has personally witnessed the trouble caused by alcohol and substance abuse.

“My father was an alcoholic, so I saw the destruction that it can cause to a family. It’s something that has remained close to my heart, and is an area where I want to help people,” she explains.

“My placement at NCETA has allowed me to be reflective and learn my strengths and weaknesses. I feel as though I’m dipping my toes in the water and I’m getting a feel for the industry before finishing my degree – and this will help me step into a role once I have my degree.”

“I see my future in health promotion and prevention of damaging health practices, because I really like putting evidence-based research into practice. I pride myself on having strong communication skills – and this is where I really believe I can make a difference.”



Public health student Tina Hart.
Photo: Brenton Edwards

Congratulations to our 2023 Alumni Award recipients

The achievements of 12 outstanding Flinders University graduates, across a range of career paths, industries and community involvement, were acknowledged at the 2023 Flinders University Alumni Awards Gala Dinner, held on Thursday 16 November 2023 at the Adelaide Town Hall. The College of Medicine and Public Health was thrilled to have four of their alumni recognised in this impressive group.

Convocation Medal



Professor Maria Makrides
(BNutDiet(GradEntry) '91,
PhD(Med) '95)

Awarded for her outstanding leadership in translational nutrition research in the fields of pregnancy and perinatal health aimed at improving maternal-infant outcomes.

The drive to understand how omega fatty acids affect developmental outcomes in babies propelled Professor Maria Makrides to discover vast knowledge about maternal, pre-natal and infant nutrition that has greatly improved the health of both mothers and babies worldwide.

As Executive Director at the South Australian Health and Medical Research Institute (SAHMRI), Professor Makrides is a global leader in translational nutrition research in the field of pregnancy and perinatal health for improved maternal-infant outcomes.

Her research program bridges an important gap between research and clinical practice that has provided significant health, social and economic impact in the care of mothers and babies.

Professor Makrides' clinical studies have helped change the composition of infant formulae, changed international food laws, updated infant feeding guidelines to introduce allergenic foods, and established specific nutrient recommendations for pregnancy and infancy worldwide. Antenatal care guidelines and clinical practice has also changed to prevent preterm birth and its consequences.

Photo: supplied by SAHMRI

Read more about Professor Makrides in the 2024 edition of Encounter at:
[Flinders.edu.au/encounter](https://flinders.edu.au/encounter)

Distinguished Alumni Award



Professor Bogda Koczwara AM (BMBS '90)

Awarded for her distinguished leadership in the medical oncology profession and health services research.

A strong focus on the health and well-being of a person with cancer from the time of diagnosis until the end of life is an increasing priority for more than a million Australians. The contribution of Professor Bogda Koczwara AM in the field of cancer diagnosis, treatment, survivorship care and research is profound.

After completing her oncology training in Buffalo, New York, Professor Koczwara created The Flinders Department of Medical Oncology which is now a thriving team of approximately 10 oncologists, trainee oncologists, clinical trial staff, nursing and allied health providers.

The department supported one of the first nurse practitioner's roles in cancer in Australia, and the first cancer survivorship program to address the growing need for support for those who survive cancer.

Professor Koczwara is an internationally recognised expert in the field of cancer survivorship.

Photo: Brenton Edwards



Professor Cassandra Szoeki (BMBS(GradEntry) '99)

Awarded for her distinguished leadership in dementia, women's health research, and the influence of policy and guidelines internationally to improve healthy ageing.

An advocate for patient-centred care and creator of the longest running study of women's health in Australia, Professor Cassandra Szoeki has spent her career influencing policy and guidelines to improve healthy ageing, advancing knowledge through publishing hundreds of medical papers and nurturing the next generation of clinicians.

Professor Szoeki's Healthy Ageing Program began with the Women's Healthy Ageing Project in 1990, examining the health of Australian women from midlife (aged 45-55 years) before the menopausal transition and into ageing. The program team continues to follow the 500 participants, who are now all aged over 70 years.

A second study, AgeHAPPY, commenced in 2020 and is open to individuals aged 18 years and older, which has resulted in 20,000 participants logging their lifestyles and health habits online.

Professor Szoeki has been involved in the establishment and steering committees of several major Australian collaborative studies, is involved with multiple STEM mentorship programs and is the author of the book *Secrets of Women's Healthy Ageing*.

Photo: Brenton Edwards

Early Career Alumni Award



Dr Dhani Dharmaprani (BEng(Biomed)(Hons) '16, PhD(Med) '20)

Awarded for her significant research in cardiac electrophysiology through the use of engineering techniques to further develop technologies improving cardiovascular health.

Applying her expertise as a biomedical engineer to cardiology research, Dr Dhani Dharmaprani's work aims to better understand and develop new treatments for the world's most significant heart rhythm disorders.

As a Future Making Fellow at the Australian Institute for Machine Learning, University of Adelaide and an affiliate of the Cardiac Signals Analysis Lab led by Professor Anand Ganesan at Flinders University, her research in the area of cardiac electrophysiology has led to Dr Dharmaprani being highlighted as one of Australia's top 25 female scientists (*The Advertiser/The Daily Telegraph*).

She has now presented at 16 national/international conferences and participated as faculty for prominent scientific societies such as the Heart Rhythm Society, regarded as the premier scientific body in cardiac electrophysiology.

She is currently one of Science and Technology Australia's Superstars of STEM for 2023-2024, a government-funded program that aims to encourage the involvement of women and non-binary individuals in STEM.

To better understand the processes of underlying cardiac fibrillation, Dr Dharmaprani is now receiving training from distinguished leaders in cardiac modelling based in the UK.

Photo: Brenton Edwards

Read the inspiring stories of our awardees: [Flinders.edu.au/alumni-awards](https://flinders.edu.au/alumni-awards)



Emerging leader mentorship

IPMP mentor Hannah Gapps.
Photo: Shannon Coleman

By Nalini Klopp

Through pairing Bachelor of Medical Science (Laboratory Medicine) (BMSLM) graduates with students on placement, the Industry Partner Mentoring Program (IPMP) allows early-career alumni to give back to their community by sharing their recent experiences and insights with current students navigating similar paths.

Currently in its first year, the program empowers students to achieve their career goals, fostering a supportive environment for personal and professional advancement in the field of laboratory medicine, with the aim to enhance skills, boost confidence and help students prepare for future roles.

Mentors provide insights into the industry, helping students navigate challenges and make informed career decisions. The personalised guidance from alumni allows students to accelerate their learning and development.

For alumni, mentoring provides a rewarding sense of accomplishment and the opportunity to reflect on a mentor's own journey. Mentors play a crucial role in shaping the future of the industry and supporting the next generation of medical scientists.

- Nalini Klopp, Director, Graduate Career Readiness, Flinders University

As a recent medical graduate, Hannah Gapps (BMedSc(LabMed) '23) knows how much becoming a mentor could help students going through their placements.

"I know that if I had had the opportunity to have a recent graduate help answer questions and guide me through what I should be getting out of my placement experience, I would have utilised it," she says.

For early-career alumni like Hannah, mentoring is not only about giving back; it also supports professional growth by enhancing leadership and communication skills and encouraging personal reflection. Guiding mentees provides a rewarding sense of accomplishment and personal achievements, while also playing a crucial role in shaping the future of the industry and supporting the next generation of medical scientists.

Hannah's mentee, Rosie Holmes, found the program to have been a massive help throughout her placement.

"It's been great to have someone close to my age who has similar experiences to me, to talk about aspects of my placement, whether good or bad – although I've had very little bad to say so far! I hope to be a mentor myself next year, after I have graduated."

If you would like to become a mentor in the program, you can contact lara.escane@flinders.edu.au, or to find out about other opportunities to be a mentor across the university, contact the alumni team on alumni@flinders.edu.au.

Discovering how memories are made

Early Career Research Seed Funding

By Lynda Allen

Ever wished you had a better memory for birthdays, important dates or maybe your shopping list? Or, more importantly, that you could help a family member avoid the devastating impact of memory loss caused by dementia?

"I've always been fascinated by how memories are formed and organised in the brain. Is it like a filing cabinet in our brain, with different brain cells holding different memories?" says emerging neuroscience researcher, Dr Yee Lian Chew.

Leading a study on memory encoding and retention, Dr Chew has made an important discovery in how our brains learn and make memories. She hopes this breakthrough will help to slow or prevent memory loss.

This discovery was possible thanks to a donor-supported Early Career Research Seed Funding grant.

The \$10,000 grant enabled the study of one-millimetre-long nematode worms that, although capable of sophisticated forms of learning for a worm, have a compact easy-to-study brain with just 300 brain cells.

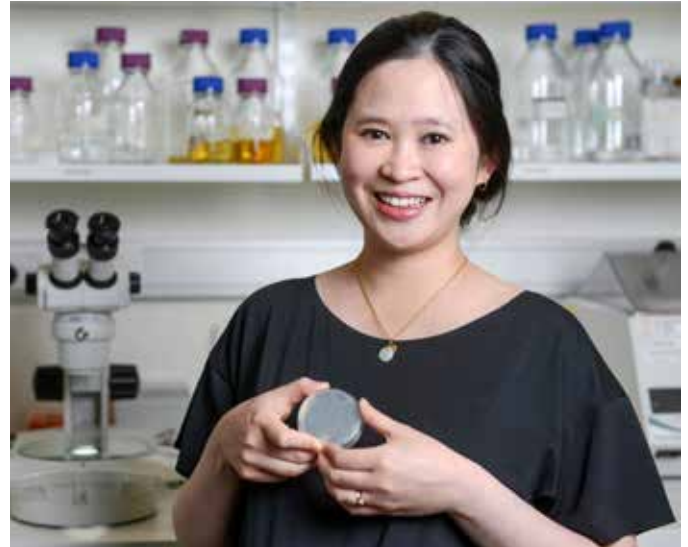
Conveniently, the worm brain cells are 80 percent genetically identical to human brain cells.

"For the project to succeed, we needed to do some new and advanced microscopy that no one else had done before, using hardware that we didn't have," says Dr Chew.

With the seed funding, Dr Chew was able to purchase the microscope required to view how the worm brain cells interact, as well as support PhD student Anna McMillen to carry out the necessary experiments.

You can provide critical support for our early career researchers to explore new ground in research that changes lives and improves our community.

Donate today at [Flinders.edu.au/donate](https://flinders.edu.au/donate)



Dr Yee Lian Chew says, "Thank you so much for supporting the work of early career researchers at Flinders University. I am so grateful!"

Photo: Brenton Edwards

"We discovered that the chemical dopamine was used by the worm brain cells to communicate with one another, in order to drive memory formation and retention."

Dr Chew hopes this fascinating finding can be used to understand how dopamine, also found in humans, functions in conditions where memories are lost – such as dementia.

Along with pursuing a new field of research, the funding helped to create connections, including a new collaboration with leading neurologist Dr Zhaoyu Li at the Queensland Brain Institute.

"As an early career researcher embarking on unique and uncharted research, it made a world of difference for this project to be supported by Early Career Research Seed Funding," says Dr Chew.

"This work has great potential for advancing research into neurodegenerative conditions, and finding new ways of managing and treating conditions such as dementia."

Donation expands opportunities for new researchers

By David Sly

Expanding opportunities for emerging researchers is especially important to one of Flinders University's medical school founders, Emeritus Professor John Chalmers AC (DM '99 honoris causa), which is why he has made a major donation to establish the John Chalmers Travel Fellowship.

Professor Chalmers' generous donation to fund the fellowship will advance the careers of Flinders' early career researchers, by supporting their participation and research presentations at major national and international institutions and conferences.

"These new researchers need our support as they struggle to secure financial support in a very tight and competitive research environment, to combat devastating and damaging health issues and diseases, which keep afflicting people of all ages from conception and birth to the end of life," says Professor Chalmers.

As a founding member of the Flinders School of Medicine in 1974 (now the College of Medicine and Public Health), Professor Chalmers helped introduce the vision of inaugural Dean of Medicine, Professor Gus Fraenkel: to integrate learning, teaching and research at the University with patient care at Flinders Medical Centre.

Within this integrated structure at Flinders, Professor Chalmers witnessed new medical researchers flourish and make significant advances in medical education and research. He also saw the lack of opportunity and barriers they face at the beginning of their career – which is why he is determined to foster the talents of early career researchers through the fellowship.

"I see a significant need to help early career researchers, especially women with a young family, who want to emerge from their doctoral studies and forge their way into a career in health and medical research."

- Emeritus Professor John Chalmers AO



Emeritus Professor John Chalmers AC.

"These formative years will be the toughest part of their journey to secure a career that includes serious and meaningful research," says Professor Chalmers.

The fellowship has already provided significant help to Dr Annabelle Small, a Research Fellow in the College of Medicine and Public Health's Department of Rheumatology, who presented at the Australia and New Zealand Society for Immunology 4th Annual Advanced Immunology School at Long Point, NSW – thanks to the funding.

Hosted over four days, the school provided a unique sharing and networking opportunity, by teaming 13 senior researchers with 42 early-career researchers and students selected from across Australia and New Zealand in the field of immunology.

"In my invited presentation, I discussed the variability we see in the presentation of rheumatoid arthritis at the clinical and immune cell levels and paired this with our recent work assessing the metabolome," explains Dr Small.

"I also shared some of our recent findings, published in the prestigious journal *Blood*, which found a link between mutations in a gene called IDH and seronegative rheumatoid arthritis.

"Having the chance to attend, engage and present this information as an invited speaker at a national conference was a rare and invaluable opportunity for me at my career stage.

"It allowed me to make connections with senior researchers in immunology at a far closer level than is possible at standard conferences."

Dr Small is also aware of the long-term benefits of the fellowship to her career.





Dr Annabelle Small. Photo: Brenton Edwards

“I am honoured to receive the support of the John Chalmers Travel Fellowship, especially in a time when funding is harder than ever to come by. I know the knowledge and connections I gained from attending the school will have a lasting impact on my career.”

- Dr Annabelle Small

Professor Chalmers knows from personal experience that opportunities presented to early-career researchers provide a pathway to successful research careers.

He remembers that his career flourished when presented with leadership opportunities within Flinders and Flinders Medical Centre – especially as Head of the Department of Medicine, but also through running a weekly Outpatient Hypertension Clinic that treated patients and ran clinical trials to find the best combinations of anti-hypertensive drugs.

“My time at Flinders University opened up opportunities for participation and leadership at a national and international level, including as chair or president of the Australian Society for Medical Research, the High Blood Pressure Research Council of Australia, the National Health and Medical Research Council, The Royal Australasian College of Physicians, the International Society for Hypertension and the WHO Expert Committee on Hypertension.”

While he has enjoyed an impressive medical career, including contributing to the founding of The George Institute for Global Health at the University of Sydney, Professor Chalmers sees Adelaide and Flinders as ideal places for young medical researchers to flourish and prosper.

“Adelaide provided a wonderful setting for bringing up our family – a daughter and four sons – and for my wife Dr Alex Bune to work at The Repat Hospital. And Flinders University provided a ready-made set of colleagues and friends, which has since stretched across Australia and around the world,” he says.

“These are friendships that have endured to the present day – all because of opportunities at Flinders University, for which I am very grateful.”

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