

# ONE THOUSAND

Ten years into forever



1,000 Westpac Scholars.  
Ten years of investing in Australia's future.

 **Scholars**

**IT TAKES A LITTLE**



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# LETTER FROM THE CEO

The premise of Westpac Scholars Trust was simple: 100 scholarships a year, supporting Australians driving positive change, forever.

Ten years on, as we mark 1,000 scholars, the Trust reflects how Westpac thinks about building Australia's future through sustained investment in people, partnerships and education.

The 12 scholars profiled in One Thousand magazine are exceptional, but they're not exceptions. They are part of a much larger ecosystem: 1,000 extraordinary people who think deeply, work collaboratively and contribute over time. What unites them is not discipline or background, but how they lead: with curiosity, rigour and commitment to something larger than themselves.

They are tackling youth homelessness and disability care, advancing solar energy and coral reef restoration, predicting disease outbreaks and organ transplant rejection, building migrant entrepreneurship and strengthening Australia's expertise on China. Their work is building the capability Australia needs to navigate an uncertain future.

Over the years I've come to appreciate that true impact requires patience. Backing these scholars means giving them time to ask the hard questions, fail safely, build networks across disciplines and lay the foundations for

breakthroughs that may take years, sometimes decades, to emerge. But I also know that this investment positions Australia to respond intelligently and adapt confidently as the world shifts.

That same long-term view underpins Westpac's broader community and philanthropic investment, which has recently shifted to build on the success of the Scholars Trust by expanding the focus on education to also improve numeracy and literacy outcomes in primary schools. Because strong foundations early in life shape opportunity across a lifetime.

One Thousand is both a mirror and a milestone. It's evidence that what we set out to achieve 10 years ago is working. A decade later and its impact is beginning to compound: ideas translated into practice, networks deepening, scholars mentoring the next generation.

We made a promise: 100 scholarships, every year, forever. If the first decade is any guide, we've barely scratched the surface of what our scholars can accomplish.

**AMY LYDEN**  
**CEO, Westpac Scholars Trust**

Restored coral from  
Dr Wing Yan Chan's  
lab at The University  
of Melbourne



Professor Antonio Tricoli at work in his lab at the University of Sydney



# A commitment built to last: Westpac Scholars Trust

In 2014, Westpac Scholars Trust was established following a \$100 million gift to mark Westpac's bicentenary. It was a deliberate act of long-term thinking: a commitment to invest in people and education as a way of building Australia's future. As Australia's oldest bank and first company, Westpac chose to channel that legacy into future generations.

## 100 scholarships a year, forever.

Westpac Scholars Trust is not project-based funding. It exists to support people at varying stages of their careers, from undergraduate study through to postdoctoral research, social entrepreneurship and Asia-Pacific leadership development. The Trust forms a cornerstone of Westpac's broader commitment to education as a driver of national capability. It reflects a strategic focus on backing people through their learning and leadership journey, building the expertise and insight Australia needs for the long term.

Financial support ranges from \$16,000 to over \$400,000, depending on career stage and need. Since its inception, the Trust has invested more than \$57 million in over 1,000 scholars. Each year, the program is valued at approximately \$4.5 million.

The scale is significant. But so is the structure: a program designed not for short-term impact, but for capability that compounds over decades.

## More than funding

Westpac Scholars receive financial support to pursue research, postgraduate study, entrepreneurship or leadership development. But what sets this scholarship program apart are the benefits that extend well beyond financial backing.

Scholars gain access to global experiences, mentoring, leadership programs and lifelong connection to the W100 Network: a growing community of more than 1,000 people working across vastly different fields, united by a shared commitment to contribution over recognition.

This design creates the conditions for scholars to think deeply, take risks, collaborate across disciplines and build the long-term capability that complex challenges demand. Scholars often work across multiple areas and the most powerful ideas emerge at the intersections where disciplines, perspectives and lived experiences meet.

## Westpac Scholars Trust: Four areas of impact

### Sustainable futures

Advancing climate resilience, environmental restoration, and solutions where people and planet thrive.

### Asia-Pacific leadership

Building the networks, cultural agility, and international partnerships Australia needs in the region.

### Connected and stronger society

Creating a more inclusive, equitable Australia through social change, education reform, and strengthening democracy.

### Innovation for impact

Backing science, new technologies, and entrepreneurship that solve complex challenges and position Australia as a leader in innovation for good.

# AUSTRALIA NEEDS TO THINK DIFFERENTLY

The world we're navigating is more complex, interconnected and volatile than ever. Climate systems are shifting, health crises travel faster than borders can control and economic opportunity remains inequitable.

These are systems under pressure and fixing them will take curiosity, collaboration and the belief that Australia's most complex problems are best solved together. The scholars profiled in One Thousand embody this interdisciplinary approach. They are working across disciplines to tackle complex challenges, from the growing strain of antimicrobial resistance and the impacts of climate change, to the persistent gaps in access and opportunity across Australia.

The numbers show the scale of the issues. But they also show progress is underway.

Sources for these statistics can be found on page 82

## Health under pressure

In 2019, bacterial antimicrobial resistance directly caused 1.27 million deaths globally.

## BUT

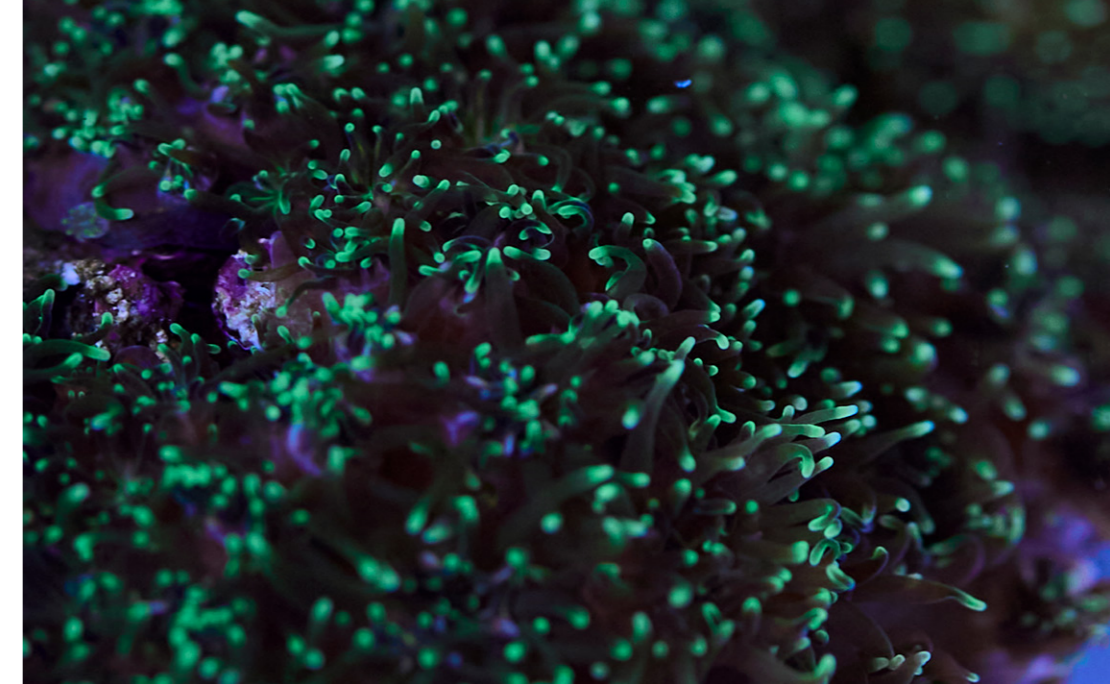
According to the World Health Organisation, 2.2 billion malaria cases and 12.7 million deaths have been averted since 2000.

# THE LONG DEFENCE

Some systems can't be rebuilt quickly once they collapse. Coral reefs take decades to recover. Bushfire-ravaged landscapes lose biodiversity that may never return. The transition to clean energy determines whether future generations inherit liveable conditions or an accelerating crisis.

This is the long defence: sustained, patient work to protect the systems and ecosystems that underpin our future. It's not short-term crisis management. It's holding the line against pressures that won't ease in our lifetime.

The three scholars profiled here are doing exactly that.



## Rewriting the rules of resilience

By refusing to accept that rising temperatures mean the end of our coral reefs, Dr Wing Yan Chan is rewriting the fundamentals of reef restoration.

In the 1800s, Tolo Harbour in Hong Kong once thrived with coral, its waters home to sprawling reef systems that covered 80 per cent of the seabed.

By the time Wing, a Senior Research Fellow at the University of Melbourne, was reading about Tolo Harbour as a teenager, urban development and pollution had reduced coverage to less than 2 per cent. 'I didn't even know there was a coral reef,' she says now. 'There's something really missing in our education. The young generation have the right to know what was there.'

Under current Intergovernmental Panel on Climate Change (IPCC) pro-

jections, coral reefs face a 70 to 90 per cent decline at 1.5°C of warming. That figure jumps to over 99 per cent at 2°C. The Australian Institute of Marine Science reports that coral loss from the 2024 bleaching event in the northern and southern Great Barrier Reef was the biggest decline in a single year since monitoring began ~40 years ago.

Traditionally, the dominant conservation approach has involved planting coral fragments back into degraded reefs, like seedlings in a garden. The assumption was that the corals would go on to thrive in a familiar environment. But the environment is no longer stable; it's only getting warmer.

[ABOVE]  
Galaxea coral collected from the Great Barrier Reef, used in an experiment to study its resilience to heat stress

[OPPOSITE]  
Dr Wing Yan Chan, 2024 Westpac Research Fellow

“You might be one person, but with your lab, your team, your community, you can definitely make a difference.” DR WING YAN CHAN

**Wing’s research asks:  
how do we plant coral to give it  
the highest chance of survival  
in this new environment?**

Her answer lies in assisted evolution, a concept that builds on natural adaptation. It works to identify heat-tolerant genes and find the symbiotic partners that will help the coral survive in warmer water. When Wing began her PhD in 2015, the idea was controversial. The traditional conservation model emphasised local adaptation, the principle that species in a particular place are best suited to that environment. But Wing and her PhD supervisor asked: what happens when the local environment no longer resembles its origins?

Wing’s review paper faced significant pushback. But over time, the field began to shift. What was once seen as radical is now increasingly recognised as necessary. ‘It’s fantastic to see that change,’ she says.

Her current work focuses on the symbiotic relationship between coral and the microalgae that live inside them. By boosting the heat tolerance of these algae and reintroducing them to coral, her team is creating more resilient partnerships. The process is painstaking: cultivate the algae, test resilience, transfer them to coral, test again in the lab across multiple species. Only then does the work move to the field.



[RIGHT]  
On expedition  
in Antarctica

[OPPOSITE]  
Dr Wing Yan Chan  
2024 Westpac  
Research Fellow

**Wing doesn’t have  
neat solutions to  
climate issues that  
are environmental,  
political and social.**

But she does believe the power to enact change doesn’t solely rest with governments or institutions. ‘We underestimate the collective power from individuals and the daily choices that we make,’ she says. Citizen scientists in South Australia tracking algal blooms. Tourism operators monitoring reef health. Local communities who notice when something’s wrong and report it. ‘It’s the little kinds of care and fire, the spark in your heart, that really translates into action.’

Her own research wouldn’t be possible without those relationships.

For her Westpac project, she sought and received consent from the Traditional Owners of Manbarra Sea Country, where she collects coral. ‘It was the right thing to do,’ she says.

Looking ahead, she sees a future where Traditional Owners and local communities aren’t add-ons to conservation projects but foundational partners. Where scientists and governments are open to new approaches that have been rigorously tested and are ready to deploy when needed. Where nature education isn’t exceptional, it’s expected.

Wing believes Australia is uniquely positioned to lead that shift. The country is a global leader in coral reef research and restoration technology. That leadership is both a domestic and regional responsibility. Small Pacific nations are experiencing some of the most severe consequences of climate change, despite contributing the

least to carbon emissions. Wing sees Australia’s role as one of knowledge transfer, not imposition. ‘Being able to bring out those ideas and support Pacific nations, understanding their unique environment and then having our kind of two-way knowledge transfer.’

She is a naturally optimistic person. But optimism, in her work, isn’t the same as denial. She has seen reefs bleach in real time. She has felt the emotional toll on young researchers witnessing it for the first time. ‘I can tell you about so many heart-breaking moments,’ she says.

What keeps her going is focus. Not on what’s broken, but on what can be built. ‘I choose to focus on what I can do within my ability. You might be one person,’ she says, ‘but with your lab, your team, your community, you can definitely make a difference.’

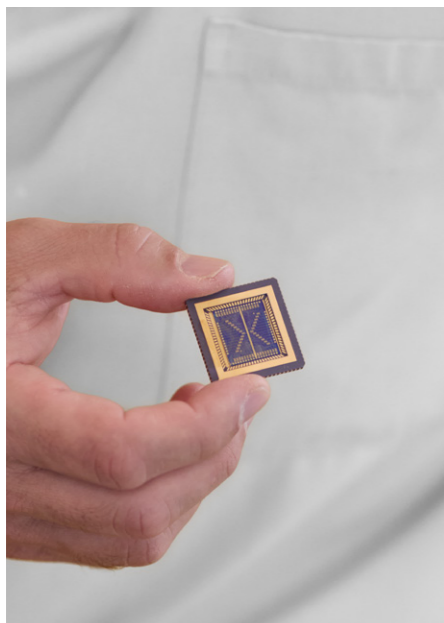
**Backed by  
Westpac  
Scholars Trust**

The Westpac Research Fellowship gave Wing the space to become the scientist she wanted to be. Through salary support for a new postdoc and PhD student, plus funding for fieldwork and partnerships, the fellowship enabled her to contribute to marine science policy, support citizen science in Antarctica, build collaborations across Hong Kong and Taiwan, and mentor the next generation.



# Engineering at the interface

Remember disinfecting your hands after touching a door handle during Covid-19? The constant worry that an invisible threat might be lurking on every surface you touched? Professor Antonio Tricoli's research just might find the solution to one of medicine's oldest problems: how to stop dangerous pathogens, that can cause significant harm, from spreading.



It began with an accidental discovery. Zurich, 2006. Antonio was developing nanostructures (extremely small materials or structures measuring between 1 and 100 nanometers) for electronics when he noticed something strange. When liquid touched these surfaces, it didn't bead or pool like water on a raincoat. Instead, it spread out in less than 0.8 seconds. In scientific terms this is called superhydrophilicity and it refers to a surface's extreme attraction to water. The discovery raised a question: if nanostructures could make surfaces attract water so aggressively, could they also do the opposite and repel water?

Pathogens (germs) such as viruses or bacteria need moisture to survive. Their spread onto another surface is usually facilitated through a droplet of water or a wet surface. Antonio, a Professor of Materials Science at the University of Sydney, hypothesised that if you could engineer a surface to repel water at the molecular level, that film may never form and the pathogens wouldn't be able to be transferred to it. Instead of killing pathogens with chemicals they might develop resistance to, could he create conditions that are so inhospitable the pathogen never has a chance to take hold?

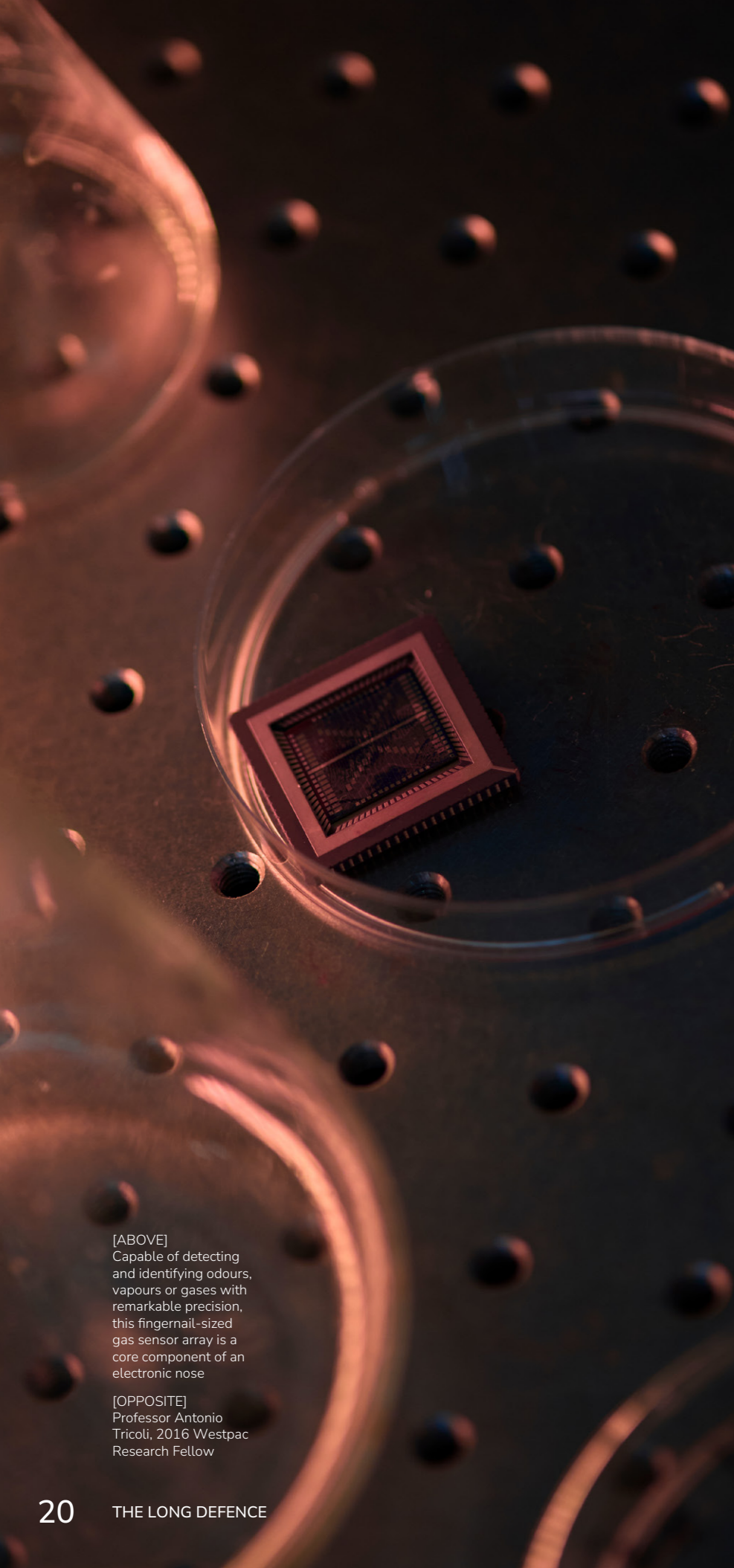
“I'm motivated by what I don't know.”

PROF ANTONIO TRICOLI



[RIGHT]  
Professor  
Antonio Tricoli  
2016 Westpac  
Research Fellow

[OPPOSITE]  
A micro gas sensor  
array that forms  
the foundation of  
an electronic nose



## Antonio's love of science is born of curiosity.

'I'm motivated by what I don't know,' Antonio says. This drive serves him well across the myriad of spaces he inhabits through his work. Moving between nanotechnology, public health, renewable energy and medicine means perpetually entering rooms where others know more than him. Engineers, he's found, are direct and solution-focused. Other disciplines move more slowly, letting ideas emerge through conversation. It can be challenging, but leaving the silo generates new ideas and this curiosity without ego is what he teaches his PhD students: 'We should never be too proud of what we already know. We are here to learn.'

According to Antonio, going broad while also going deep can be exhausting. The learning curve when it comes to translating discovery into deployment can also have its challenges, as Antonio found when developing a sensor to measure acetone in breath, an early indicator of Type 1 diabetes. He imagined children at school, whistling into a device that could detect danger before it escalated. A company approached him and asked what the shelf life of the product would be. 'When I told them four or five years, they asked me to make them work for less time as it was better for their business model.'

It's a moment that crystallises the friction between research and translation. Only one in 5,000 to 10,000 drug candidates entering preclinical testing ever receives regulatory approval. The average journey from discovery to market takes 10 to 15 years. Somewhere in that long, expensive process, the question shifts from 'does this help?' to 'how can the technology be financially sustainable?'

Antonio's antimicrobial surfaces sidestep one part of that problem by removing the need for new antibiotics. Unlike antibiotics, which bacteria can learn to resist, these surfaces don't select for stronger strains. They just prevent pathogens from sticking at all. It's a passive form of protection — no chemicals bacteria can adapt to, no arms race of antibiotic resistance, just physics working at the nanoscale.

According to a systematic analysis published in *The Lancet*, bacterial antimicrobial resistance directly caused 1.27 million deaths globally in 2019. WHO reports that in high-income countries, seven in every 100 patients in acute-care hospitals acquire at least one healthcare-associated infection. The surfaces Antonio designs could remove that risk entirely.

In the future, Antonio hopes we'll walk into a doctor's waiting room without fear of catching something.

The surfaces no longer harbour threat. Superbugs won't be evolving faster than we can fight them, because the environments that select for resistance will have changed. Early detection sensors will track emerging viruses, giving societies time to prepare rather than react.

In science, rejection is constant – grants denied, papers rejected, translation delayed. 'You have to have a strong drive and resilience to keep going.' The Westpac Research Fellowship connected him with people outside his field, showed him how science is seen from the outside and reminding him why it matters.

Young scientists, he says, need that support. The work is hard. The path is uncertain. But the questions remain irresistible. And in the end, Antonio tells his PhD students, 'you have an opportunity to explore your curiosity in something that you like. So you have to own it.'

### Backed by Westpac Scholars Trust

The Westpac Research Fellowship provided Antonio with crucial support to continue his research. Beyond funding, it gave him the confidence to pursue high-risk, multidisciplinary research spanning nanotechnology, public health and renewable energy. The fellowship connected him with people outside his field, strengthening his ability to translate laboratory discoveries into real-world applications.



[ABOVE]  
Capable of detecting and identifying odours, vapours or gases with remarkable precision, this fingernail-sized gas sensor array is a core component of an electronic nose

[OPPOSITE]  
Professor Antonio Tricoli, 2016 Westpac Research Fellow

## Climate and ecosystems at the edge

Australia's 2019–20 Black Summer fires burned approximately 18.6 million hectares and cost an estimated \$100 billion.

## **BUT**

Since 2012, Indigenous fire management across 24 million hectares of northern Australian savanna has reduced emissions by around 1.2 million tonnes a year.

Sources for these statistics can be found on page 82



[ABOVE]  
The Blue Mountains during the 2020 bushfires.  
Photo credit: Eddy Summers

[OPPOSITE]  
A/Prof Hamish Clarke  
2022 Westpac Research Fellow.

# Learning to live with fire

Through his research into bushfire risk, fire management and climate change at the University of Melbourne, Associate Professor Hamish Clarke is reframing how Australia understands fire. Not as the enemy but as something we can prepare for and live alongside.

Fire is physical: a chemical reaction comprising of heat, oxygen and fuel. Fire is ancient: 400 million years old, woven into ecosystems long before humans existed. Fire is global: part of Earth's climate system. Fire is local: that's where we face it and feel it. Fire is risky: capable of causing profound devastation. And fire is cultural: carrying different meanings, memories and relationships.

The urge, when faced with something so elemental, is to control it. It's a fraught endeavour from Hamish's perspective. 'There are unquestionably many things we can do to influence fire,' he says. 'But there are also hard limits. And the harder we try to control fire, the more we separate ourselves from it, leaving ourselves open to catastrophe.'

Australia's Black Summer fires of 2019–2020 made that painfully clear. Around 20 per cent of the country's temperate forest burned, compared to the usual two to five per cent. The name Black Summer is itself a bit of a misnomer. The fires lasted months, from spring through summer, destroying thousands of homes and costing an estimated \$100 billion, according to the royal commission into the disaster. Much like Covid-19 it truly was unprecedented. Yet if we don't change course, not only will it happen again, it will be worse, warns Hamish.



## Hamish's work sits at critical junctures: where science meets society and where prediction meets preparedness.

His journey has been anything but linear: business, biochemistry, international studies, a PhD in climate science, years in the public service. He fell into fire research and took time to build an appreciation for it. But his refusal to stay in one lane taught him something essential. Some problems can't be solved by science alone.

'We love solving problems with science,' he says. 'But as we know from climate change, you can have a beautiful understanding of the climate system, and it doesn't translate to political action.'

His unconventional background left him more comfortable with what he calls a pluralist approach: there's not one right way to do things. Fire doesn't have a disciplinary home. It works across boundaries: ecology, forestry,

climate science, geography, law, social science, the humanities. And increasingly, there's recognition that some of the most important knowledge about fire has been here all along.

Australia's Indigenous tradition of working with fire is ancient and diverse. It's about listening to Country and working with Country. The Clean Energy Regulator reports that enabling improved Indigenous fire management across 24 million hectares of northern Australian savanna has reduced emissions by around 1.2 million tonnes a year since 2012. The approach combines traditional knowledge with modern techniques, resulting in less fire under more extreme conditions.

But Clarke is careful not to romanticise the process. Relationships between academia and Indigenous communities

have been problematic, often extractive. Any meaningful collaboration takes time. It requires listening and acknowledging that caring for Country does not sit neatly within a risk management framework. 'It's not just knowledge, a tool, or a product,' he says. 'How do we design a healthy system?'

Any system must consider overlapping issues. A Climate Council report highlights at least 6.9 million Australians live in areas with high bushfire risk, largely on the fringes of major cities. Over 5.6 million homes are at risk nationwide, with 90 per cent of homes in some bushland-bordered suburbs built before modern fire safety standards. Australia has warmed by around 1.5°C since 1910, and extreme fire weather is increasing. The number of dangerous fire weather days is rising. The fire season is longer.

[RIGHT]  
The Blue Mountains following the 2020 bushfires. Photo credit: Eddy Summers.

[OPPOSITE]  
A/Prof Hamish Clarke 2022 Westpac Research Fellow



## "It's countercultural to build things slowly."

A/PROF HAMISH CLARKE

And yet, Hamish points out, Australia also has real strengths. A federated, state-based system means there's rich operational knowledge in every jurisdiction, hard-won over generations. There are strong connections between research and practice, between disciplines, between agencies. Australia is seen internationally as a leader in the fire management space.

Looking ahead, he hopes for greater collective literacy about fire. An understanding that fire is part of the environment and that while it poses risks, those risks can be navigated. Better evidence on what works and what doesn't.

Data sharing across states, territories, countries. Learning from other hazards. Investing in social infrastructure, not just physical infrastructure. Thinking about recovery in terms of years and decades, not just the first 48 hours.

He hopes Indigenous approaches are no longer treated as add-ons, but as foundational. That there are better relationships, better two-way knowledge transfers. That planning agencies, fire agencies and legal frameworks are pushing in the same direction.

Hamish may be drawn to problems, but he's also energised by possibility. Fire, for all its devastation, offers a

chance to build healthier systems, to work differently, to acknowledge we don't have all the answers yet. One of his colleagues keeps a picture of a snail as a reminder to go slow. In a field defined by urgency and the pressure to act, that might seem counterintuitive. But for Hamish, it's essential. 'It's countercultural to build things slowly.'

Making space for different voices, different knowledge systems, different ways of understanding what a healthy relationship with fire might look like requires patience. It requires resisting the silver bullet and the urge to control what cannot be controlled.

### Backed by Westpac Scholars Trust

The Westpac Research Fellowship empowered Hamish to take his holistic approach to the next level, thinking as broadly as possible about fire. It gave him the freedom to explore creative ways of communicating complex risk, to build better connections between academia, industry and communities, and to work across disciplines in ways that don't always fit neatly into traditional research frameworks.



“We love solving problems with science, but we all know from climate change, you can have a beautiful understanding of the climate system, and it doesn’t translate to political action.”

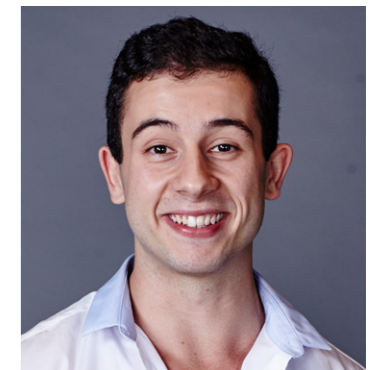
A/PROF HAMISH CLARKE

## Impact highlights



**SAM PAYNE**  
**Social Change Fellow**

Co-founder and CEO of Pink Elephants Support Network, driving systemic change to improve care, leave entitlements and support for miscarriage and early pregnancy loss.



**DAMIEN MEDURI**  
**Asian Exchange Scholar**

International trade and investment specialist strengthening Australia’s economic and government relationships across Greater China and the Asia-Pacific region.



**HARRY CARPENTER**  
**Future Leader**

Engineer and researcher developing AI-powered simulations to identify dangerous arterial plaque and help prevent heart attacks.



**THOMAS DA JOSE**  
**Future Leader**

Social entrepreneur advancing water, sanitation and hygiene access through community-led infrastructure and education projects across the Asia-Pacific.

# BUILDING FROM THE INSIDE

Systems designed without input from the people they're serving often miss the mark. Real equity means centering the voices of those who know where the system breaks, and what actually works on the ground.

This is building from the inside: solutions designed by people who've navigated the systems themselves and have seen how structures fail those they're meant to support. The next three scholars profiled are examples of this type of leadership that's shaped by lived experience.

Carla Raynes  
2024 Westpac  
Social Change Fellow



# Building confidence, not just platforms



[RIGHT]  
Danny Hui  
2020 Westpac Social  
Change Fellow

Danny Hui is redesigning disability care coordination. Not by adding more services or louder advocacy, but by listening deeply and building technology that shifts power back to families.

In 2013, Danny Hui sat in the speech therapy clinic with his youngest son Monty and started counting. Specialists from the hospital system. Therapists from outside. Educators. Support workers. It didn't take long to count to 40; the number of people involved in his son's care.

'Then it really hits you,' Danny says, 'the scale of the problem.'

For most families, it starts with the unexpected. Results from a routine test or a sudden accident. For Monty, who lives with a rare disease, it was newborn hearing loss. Early interventions focused on speech, hearing and language. Weekly sessions

became routine. But as Monty's physical needs developed, requiring physiotherapy and occupational therapy alongside speech therapy, a pattern emerged. Or rather, a lack thereof.

'We were going to these weekly speech and language sessions,' Danny recalls, 'and I realised there'd been no conversation about how he could actually be in the room to receive the therapy. There was no adequate seating for him, no supports for him to be physically comfortable. We would just go into these sessions week to week and do the same thing over and over again. We'd told them we had additional support needs but no one had joined the dots.'

“You feel that demand on yourself as a person and as a parent... You're trying to get as much done as possible because they're young. Every decision feels urgent, like the whole thing is a race.” DANNY HUI



[BELOW]  
Danny Hui's son,  
Monty, at home  
in Sydney

The answer, Danny soon learned, was that the coordination – the work of making 40 different people communicate effectively around one child's care – fell entirely to the family.

'You feel that demand on yourself as a person and as a parent,' Danny says. 'You're trying to put in place interventions early. You're trying to get as much done as possible because they're young. Every decision feels urgent, like the whole thing is a race.'

According to a 2023 report from the National Disability Service, fragmented health and disability services disproportionately impact 5.5 million Australians living with a disability. Over 30 per cent of adults with disability report high psychological distress. Many carers have to reduce work hours or leave employment entirely. Meanwhile, 82 per cent of disability service providers report they cannot fill service requests due to shortages. The infrastructure is expanding but the gaps remain.

'I was a person from outside of this world,' says Danny, whose background is in engineering and disaster management. 'I didn't know anything about disability or support services or even hospitals before Monty was born. All of that was shocking to me.' But now that he's in the community, when he mentions a 40-person care team, nobody blinks. 'It's not remarkable. People say, "Yeah, I know. Let me tell you how many people I have."'

That realisation, that this wasn't just his family's experience but a shared pattern across thousands of families, became the foundation for *sameview*, a platform designed to help families, clinicians and carers collaborate more effectively around shared goals. *Sameview* currently supports a community of over 16,000 users.



## Backed by Westpac Scholars Trust

As a 2020 Westpac Social Change Fellow and founder of *sameview*, Danny has been able to develop technology-enabled solutions while pursuing systemic change through board work and mentoring. The fellowship's flexibility allowed him to grow his impact across multiple avenues, from individual families to national policy, recognising that leadership doesn't have to be singular.

'Our story is just one,' he says. 'As soon as you meet people, you discover just how diverse this issue is.' So when Danny and his team began developing *sameview*, they started with uncertainty. 'We'd heard enough to try, but the most important thing is to go out there and talk to people, and turn everything we hear into useful services.'

The foundation of *sameview* is shaped by choice, independence and respect for individuality. 'Each person is beautifully individual,' Danny says. 'If that's your guiding principle, it really shapes what you can and can't do.' As a result, *sameview* doesn't define people by categories, it doesn't require families to share more than they're comfortable with and crucially, it doesn't advertise. 'We have to be cautious, because in the sector there's a lot of solutions that mask commercial bias. That often works against the best outcomes of the individual.'

Even *sameview*'s platform had to be designed differently. Danny recalls asking families if they wanted to see progress charts and percentage

indicators. The response surprised him. 'Some families are working towards goals that may never be achieved, but the most important thing is that they're working towards it. They didn't want to see charts, graphs and metrics, they just wanted the platform to tell the story of how they're going.'

Danny highlights that among families using *sameview*, 85 per cent report saving time every week in care coordination tasks, an average of two hours or more. But more telling: 73 per cent felt more confident managing care and support, 75 per cent felt more included in care decisions and 62 per cent reported having more space for other important things in life, for work, education, relationships.

'The workload doesn't disappear,' he says. 'That's just what it is. But that confidence changes everything.'

He recalls a turning point early on with Monty. 'When he was really young, we wanted to go on a family holiday and we felt like we couldn't.

It was this moment of: couldn't we just say to our therapist, our goal at the moment is to work out how we can go on a holiday? There was nothing stopping us from doing that except our own confidence and capacity. That mindset change was huge.'

Alongside *sameview*, Danny's commitment to the community has seen him work as Deputy Chair of Children and Young People with Disability Australia, mentor emerging social entrepreneurs and deliberately lift the voices of young people with disability.

His own life has grown more complex since those early days. He now has three children with disabilities, each with different support needs and different teams. Aged 17, 15 and 13, they are learning to advocate for themselves, taking on more of their own care coordination in age-appropriate ways. The 40-person care teams are still there. But confidence, as Danny knows, changes everything. And confidence begins with someone listening, with choice being real and with power shifting back to the person.

# Reframing the narrative

Usman Iftikhar is rethinking how Australia mobilises the skills of its migrant workforce. By creating practical pathways and reframing the narrative, underutilisation is seen for what it is: a systemic gap, not an individual failure.

[LEFT AND OPPOSITE]  
Usman Iftikhar  
2019 Westpac  
Social Change Fellow



“I was really understimulated and underutilised... Eventually I thought, if people won't give me a job, I'm going to start my own business.”

USMAN IFTIKHAR

For Usman, who emigrated from Pakistan to Australia in 2013, this isn't an abstract issue. Despite having a master's degree in engineering management, he'd found himself stocking shelves at a service station at 3am. He'd applied for more than 1,000 jobs at this point.

'I was really understimulated and underutilised,' Usman recalls. 'Eventually I thought, if people won't give me a job, I'm going to start my own business.'

His experience wasn't unique. There's plenty of familiar rhetoric about the skills shortages impacting Australian industries, from construction to healthcare. The solutions almost always focus on attracting offshore workers to fill the gaps.

Yet a significant portion of Australia's current migrant talent is unseen, underused or locked out entirely. In the 12 months to February 2025, a Jobs and Skills Australia report puts the unemployment rate for people born in North Africa and the Middle East at 6.8 per cent, while for those born in North-West Europe it was 2.9 per cent.

Usman's frustration became the foundation for Catalysr, Australia's leading startup incubator for migrant and refugee entrepreneurs. But Catalysr didn't emerge from a business plan. It came from a mentor's challenge after Usman's clean tech startup failed. The brief was simple: solve a real problem you've faced, not just another app or tech solution.

'Up until this point I'd been thinking it was just me,' Usman says. 'But when I looked at the data, I realised that a large majority of Australia's migrant population are facing these challenges.'



## Backed by Westpac Scholars Trust

The Westpac Social Change Fellowship gave Usman the resources and network to think globally about migrant entrepreneurship. It enabled him to attend Stanford, connect with organisations across the UK, Canada, Ethiopia and Kenya, and understand that migrant underemployment isn't just an Australian challenge.

The fellowship also provided coaching support that helped him scale Catalysr nationally, particularly valuable when the pandemic hit and the organisation needed to rapidly shift from in-person programming to online delivery. Through the broader Westpac network, Usman accessed board skills audits and governance support, strengthening Catalysr's infrastructure for long-term impact.

From the beginning, Usman made deliberate choices about what Catalysr would not be. It wouldn't try to be everything to everyone. And most importantly, it wouldn't charge commercial rates, because that would exclude the very people it was designed to serve. After a few years of experimentation, Catalysr found its niche: tech and social impact ventures, spaces where no one else was focusing on migrant and refugee founders.

To sustain the model, Usman set up a hybrid structure: a foundation running free programs funded by philanthropy and grants, alongside a separate proprietary entity generating revenue through fee-for-service work with councils and universities.

The results speak for themselves. Catalysr has now supported over 1,200 people from 87 countries and helped launch more than 300 businesses. Forty-eight per cent of participants have been women, a target Usman and his team worked hard to achieve. The stories that emerge from the programs reveal not just individual wins, but systemic gaps finally being addressed.

There's the founder who started a social enterprise sourcing coffee

beans directly from African farmers to Australian cafés. There's the moving company that offers free services to people facing domestic violence. Then there's the tech startup that, following rejections from multiple potential partners, has since launched its satellites into space.

'We're a bit of a triage nurse,' Usman says. 'People don't know where to go or what to do. We help point them in the right direction.'

But the work isn't without tension. Power imbalances are everywhere: between investors and founders, mentors and entrepreneurs, established Australians and newly arrived migrants. Usman has learned to navigate this carefully. Catalysr trains founders to understand they have agency; they can say no to advice, to funding, to partnerships that don't serve them. At the same time, the organisation works with mentors and investors to help them recognise the weight their words carry, especially for people from cultures where deference to authority is deeply ingrained.

'In many cultures, if a mentor tells you something, you take it as gospel,' Usman explains. 'We need to train both sides.'

The CGU Migrant Small Business report highlights one-third of Australian small businesses are migrant-owned, and more than 1.4 million Australians work for migrant employers. Forty per cent of Australian tech founders are born overseas. Yet the narrative hasn't caught up. Migrants are still framed as taking jobs, not creating them. Usman sees entrepreneurship as a way to cut through the division that has seeped into much of our public discourse.

'The average person really wants to help make the community better,' Usman says. 'We just need to create the right systems and the right incentives.'

'In the next 20, 30, 50 years, we're going to see a lot more migration due to climate change,' he says. 'We're not prepared for that. We need systems and mechanisms in place now, while supporting the local populations that will absorb those people. How do we not repeat the mistakes we've made so far?'

It's a question that shapes how he thinks about the coming decades, the next generation of founders and the infrastructure Australia desperately needs. Not just for today's gaps, but for the ones still forming on the horizon.

[BELOW]  
Stock image

[OPPOSITE]  
Usman Iftikhar  
2019 Westpac  
Social Change Fellow



Sources for these statistics can be found on page 82

## **Inclusion and opportunity**

In 2024–25, specialist homelessness services assisted around 289,000 clients; 27 per cent were aged under 18.

## **BUT**

Homelessness programs yield average cost savings to government of \$3,685 per client per year.

# It is possible to end homelessness; it starts with believing we can



For two decades, Carla Raynes watched young people experiencing homelessness fall through the same gaps in the system. She knew that without stable housing, nothing else was possible. So alongside her founding team she built the Cocoon.

[LEFT]  
Carla Raynes  
2024 Westpac  
Social Change Fellow

[RIGHT]  
The Cocoon, located  
in the leafy streets of  
St Kilda in Melbourne.



It's a common metaphor: your business is your baby. But for Carla Raynes, the metaphor played out in real time. She gave birth to her son Ted at the same time as founding Bridge It – a charity providing homes to young women and gender diverse people who have experienced the out-of-home care system or homelessness. The teething happened side by side, as did the growth. 'It's been amazing yet sometimes exhausting,' says Carla. 'So much of Bridge It has mimicked the experience of raising Ted.'

Carla has spent nearly two decades in the industry, working across crisis accommodation, youth refuges and council housing in both the UK and Australia. She's supported inner-city young people, street-based sex workers and people leaving prison. She knows what works and what

doesn't. What she's learned, again and again, is this: 'you cannot work with people on their mental health or drug and alcohol addictions, you can't support people to exit sex work or get jobs or do anything, unless they have a home.'

The scale of youth homelessness in Australia is sobering. In 2024–25, specialist homelessness services assisted around 289,000 clients. More than a quarter, or 78,800, were under 18. Around one in three young people leaving out-of-home care experience homelessness within their first year after leaving. And of those who do seek help, 69 per cent are returning clients, not new ones. Housing affordability stress was a reason for seeking assistance for 36 per cent of clients (average rent across the country increased by 5.5 per cent between 2024 and 2025).



## Backed by Westpac Scholars Trust

The Westpac Social Change Fellowship provided Carla with a \$50,000 investment in her professional development. The fellowship also allowed her to visit services in the UK, and undergo mindset training, which she then funded for her entire team. 'I was stretched so thin,' she says. 'Trying to be an excellent wife, an excellent CEO, and not nailing either. I'm a changed person from this experience.'

Working across different Australian services, Carla began to see the gaps. Crisis accommodation and youth refuges only offered six to eight weeks of support – not enough time to achieve decent, long-term outcomes. On the other end of the spectrum, education-first models require young people to be ready for or engaged in study. But the young people Carla was seeing, cycling in and out of short-term accommodation, didn't always meet that criteria. And then there was transitional housing: an apartment in the community but with little support and an expectation of complete independence. 'For many young people, they can't handle that,' she says. 'There was nothing in the middle,' Carla says. 'That's the missing piece.'

So she built The Cocoon, a home in Melbourne for young women and gender-diverse people aged 16 to 21 that offers 12 to 18 months of semi-supported housing, alongside her founding team and Board. 'The team is there during

the week, but the young people live independently on the evenings and weekends. We have seen how powerful that is for building skills around independent living.'

At the Cocoon, young people finish Year 12. Get driving licences. Start university. Buy their first cars. Form positive relationships. After they leave, they move in with partners. Take overseas holidays. Work full time. 'We are so proud of our residents and their achievements, many of which felt out of reach for them when they arrived at the Cocoon,' Carla says. 'It's reflective of the power of stable, supportive housing. Reflective of the mindset shift.'

Carla refuses the label 'homeless'. 'It reduces people down to one thing... It's really patronising.' At Bridge It, they talk about 'people impacted by homelessness', rather than people who are homeless. The focus is on potential and what's possible when you invest in people.

Becoming a mother changed how Carla saw the work. 'When you study social work and work in the sector for a really long time, you start to absorb the status quo. A certain rigidity around rules, policies and procedures.' But now, Carla often comes back to a single question: 'What would we do if they were our child?' That's become a mantra at the Cocoon.

Carla is in good company. She meets regularly with the CEOs from Kids Under Cover in Victoria and Stepping Stone House in Sydney to share learnings, strategies and aspirations. 'We love the expression 'radical collaboration', ' Carla says. 'We can't end youth homelessness unless we work together.'

She's also learned to collaborate differently. Not just with the homelessness sector, but with big business. 'Some of the homelessness sector and government have a deficit

mindset. We don't have enough money. The crisis is too big. Everything's really hard. All of that is true. But the way business thinks is: we're going to conquer this. We're going to make this happen. There's a lot more courageousness in the mindset of business people. They make me more courageous. They make everything feel like it's possible.'

Ultimately, Carla wants to overhaul the entire system. She wants to achieve functional zero, where youth homelessness is rare, brief and non-recurring. She estimates it would require around 1,000 Cocoons across Australia. Right now, there's one with a second on the way. By 2030, she wants four to five in Victoria. Ultimately she would like any young person without a safe home to have access to a Cocoon without a waiting list. 'Families will always break down. Things will always happen. But when they do, we want to be there to help.'

## “What would we do if they were our child?”

CARLA RAYNES



[LEFT]  
The Cocoon offers young women and gender-diverse people up to 18 months of semi-supported housing.

[OPPOSITE]  
Carla and her team at the Cocoon headquarters

# Impact highlights



**NINNA LARSEN**  
**Social Change Fellow**

Founder of Reground, leading a circular economy social enterprise that transforms coffee waste into community resources and scalable sustainability solutions.



**JOSHA HO**  
**Young Technologist**

Tech entrepreneur and founder of Acenci, developing digital tools that help schools build positive culture and student engagement.



**INDIGO STRUDWICKE**  
**Future Leader**

PhD researcher in science communication, exploring how science, society and policy can better work together to inform public decision-making.



**NIC MARCHESI OAM**  
**Social Change Fellow**

Co-founder of Orange Sky, focused on restoring dignity for people experiencing homelessness through free mobile laundry, showers and connection.



“In the next 20, 30, 50 years, we’re going to see a lot more migration due to climate change. We’re not prepared for that. We need systems and mechanisms in place now.”

USMAN IFTIKHAR

# EARLY SIGNALS

Many of the challenges we face can be avoided, or at least significantly reduced, when we're able to identify them early.

Catching these early signals is about more than prediction. It's where data, foresight and systems thinking converge: identifying patterns that others overlook and reading the signs embedded in biology or behaviour.

The following scholars have made careers from catching what others miss — detecting disease, predicting risk and building systems that intervene early, before a concern becomes a crisis.



# When certainty meets care

Harry Robertson is using AI to build tools that reduce the risk of organ transplant failure. By offering clinicians data-driven certainty, he's able to decrease the risk involved in how transplants are managed.

In 2024, Harry witnessed a moment that clarified everything. A transplant patient came in very sick. The clinician was convinced she needed a biopsy of her transplanted kidney, but the patient was terrified. Biopsies aren't a minor procedure. They require weeks off work, time in hospital and result in significant discomfort. The first biopsy came back fine, but the doctor wasn't satisfied. He recommended a test, derived from data collected from thousands of patients, that could detect organ rejection via a blood test. It came back positive. As a result, she

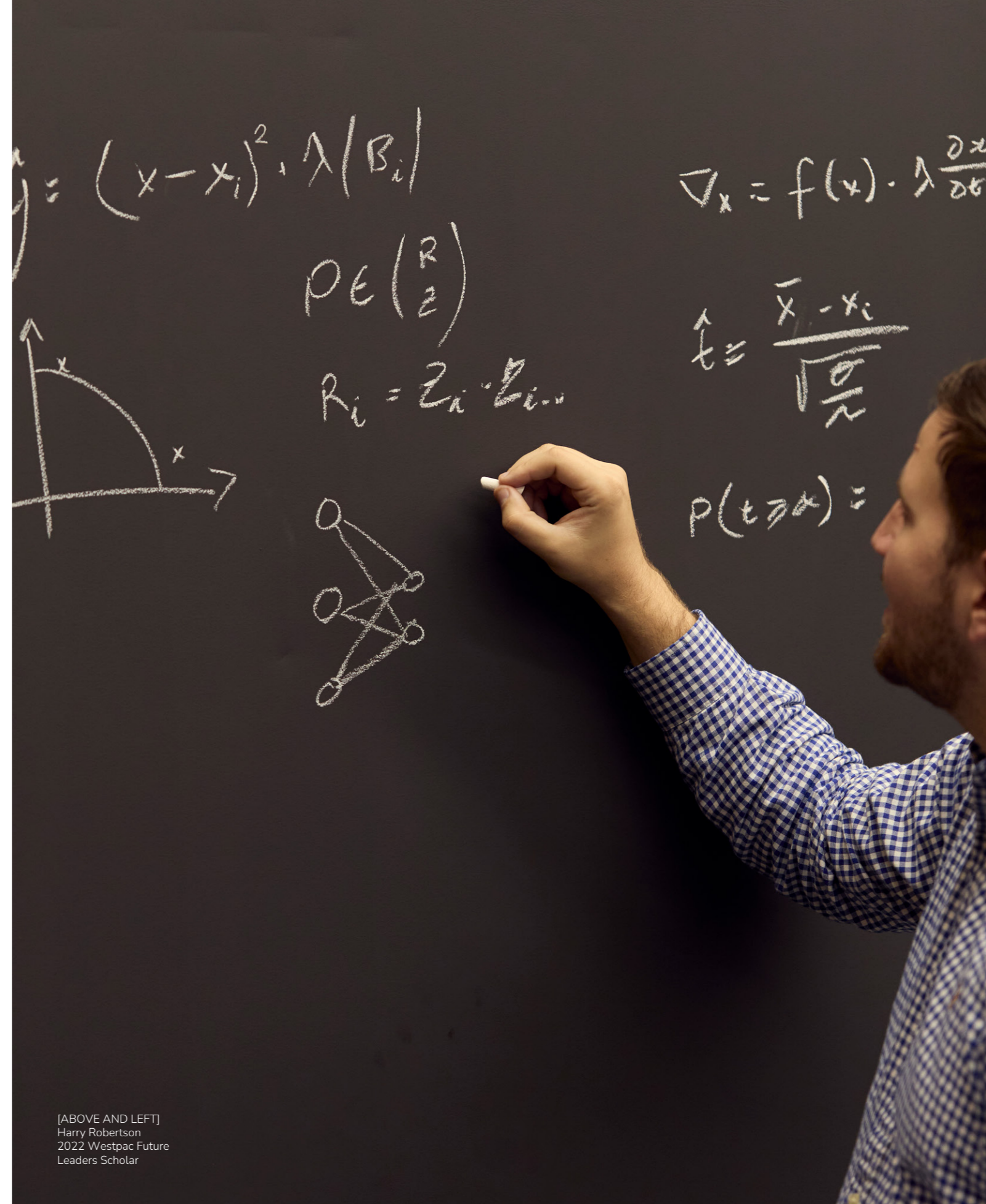
had a second biopsy, which raised the alarm. Without proper diagnosis and treatment, the patient would have received a terminal diagnosis.

'Being able to take a bit of blood and inform the need for something, especially a procedure patients don't like such as a biopsy, using big sets of data seemed fundamentally different to the way we're doing medicine,' said Harry.

For Harry, that difference isn't abstract. 'Growing up, my father had the coolest job.' As a transplant coordinator, Har-

ry's dad was responsible for calling patients to tell them an organ had become available. He often spent years building a relationship with these patients. When the call finally came, Harry could hear it: very ill individuals who'd been given a second chance at life crying with joy down the phone.

As he got older, Harry began to understand the sobering reality that transplants don't always work out. Families or friends give kidneys to loved ones and sometimes those kidneys are rejected. That understanding shaped the work he's building now.



[ABOVE AND LEFT]  
Harry Robertson  
2022 Westpac Future  
Leaders Scholar



## Backed by Westpac Scholars Trust

The Westpac Future Leaders Scholarship provided Harry with salary support and the flexibility to pursue research at the intersection of data science and transplant medicine. It gave him time to take a big swing at something he believes will fundamentally improve Australia. And when a fellow scholar challenged him to think beyond publication and consider intellectual property and commercialisation, the scholarship had already given him the foundation to pivot.

In 2024, according to the Australian Donation and Transplantation Activity Report, there were around 1,800 Australians on the organ transplant waitlist. Each year, between 30 and 60 people die while waiting. For those who do receive a transplant, a 2021 study reports that five-year kidney graft survival sits at 83 per cent for deceased donors and 91 per cent for living donors. But rejection remains a persistent risk, reported in around 14 per cent of recipients in multi-year cohort studies.

The current gold standard for detecting transplant rejection from blood takes seven days and costs around \$3,000. It involves genome sequencing, an approach that's thorough but slow. Early in his research, collaborators made it clear to Harry that seven days is far too long. Clinical decisions need to happen in three hours, not nearly a week later.

So Harry excluded all solutions that would take longer than three hours. His approach is based on the same PCR technology used for Covid-19 tests: fast, affordable and accurate. It's not about replacing what clinicians do. It's about giving them better tools to do it.

Harry's AI tool recently identified a case from 2014 where inflammation was present in the 3,831st microvessel in a biopsy sample. Had that inflammation been found at the time, an earlier diagnosis may have resulted in a different, more successful, patient outcome. That's where AI can shine. 'We can't expect humans to spend their days counting 3,831 microvessels and then the number of immune cells within each of those vessels,' Harry says. 'That's going to burn somebody out very quickly.'

One of the problems Harry is contending with is how often rejection gets misdiagnosed. Pathologists

disagree on whether a biopsy shows rejection over 50 per cent of the time. This is not medical malpractice or mistaken diagnosis; the way rejection is scored is subjective. According to Harry, if AI can act as a safety net, it could provide valuable support to the entire pathology industry.

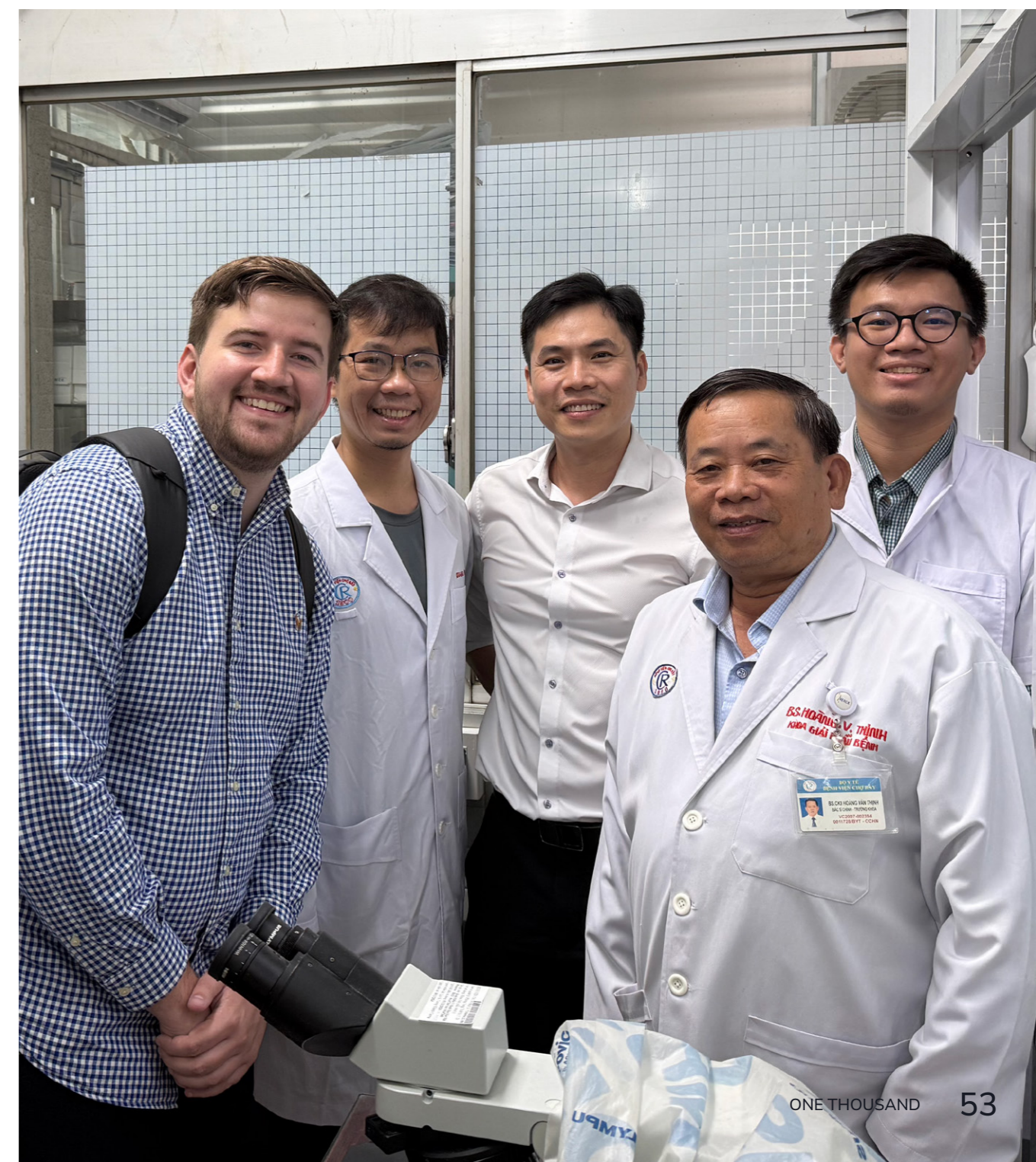
But Harry is keen not to overstate the influence of AI on medicine. He grew up with both parents working as nurses and his partner is a nurse. He's spent time in hospital himself, and he remembers the doctors who came to check on him. 'I loved it when the doctor came to see me,' he says. 'This work isn't about replacing that. It's about giving clinicians tools that let them be more certain when they walk into a room.'

Collaboration in this space is complicated. Patient data is ethically sensitive. The definitions around what an AI model is, and what risks it carries, are still being worked out. And the way models are currently evaluated, based on how well they predict outcomes, isn't necessarily the right measure. A clinician might see what the AI recommends and decide the patient is too unwell for another round of tests. The AI reads that as an error. But it's not; it's hard-won judgment.

'We need to be evaluating these models as tools, not as intelligent systems ready to overthrow the healthcare system,' Harry says.

In the future, Harry hopes AI in medicine is as uncontroversial as an MRI. In the meantime, he's building tools that won't replace doctors, but they might give a pathologist a second set of eyes. They might mean fewer biopsies for people who can't afford the time off. They might also catch the inflammation in the 3,831st microvessel, before it's too late.

“We need to be evaluating these [AI] models as tools, not as intelligent systems ready to overthrow the healthcare system.” HARRY ROBERTSON



[RIGHT] Harry Robertson (on left) and Dr. Hein Nguyen (third from left) with members of the pathology team at Cho Ray hospital, Ho Chi Min, Vietnam.

# The epidemiologist working herself out of a job



From the pandemic response in Papua New Guinea to strengthening Australia's regional health security, Professor Meru Sheel's work is driven by a simple idea. The safest future is one built on equity, evidence and strong local systems. And if she succeeds, her job may one day no longer be needed at all.

[LEFT]  
Meru Sheel  
conducting fieldwork  
in Cox's Bazar, south-  
east Bangladesh, 2018

[RIGHT]  
Prof. Meru Sheel  
2019 Westpac  
Research Fellow



“If the doctors or nurses start crying, it means your work has touched a nerve. That they can see the value in what you’re doing.”

PROF MERU SHEEL

In May 2020, as Covid-19 began to tighten its grip on the world, Meru Sheel was travelling to Papua New Guinea to support the country’s pandemic response. From the outside, the public health advice was clear — stay home, isolate, protect yourself and others. However, Meru could see the challenges with this approach in PNG. In crowded, multi-generational households across the Pacific and South Asia, isolation ranged from difficult to impossible. Policies designed for wealthy Western countries were being applied in contexts where they simply could not work.

The consequences of this disconnect were profound. The Covid-19 pandemic pushed an estimated 70 million people globally into extreme poverty, while also disrupting routine immunisation and disease surveillance systems. For Meru, an infectious diseases epidemiologist and Professor of Infectious Diseases and Global Health at the University of Sydney, this was a stark confirmation of what

she had seen for years; global health systems were fragile long before the world’s attention turned to Covid-19.

Meru had worked across outbreak responses in Australia and the Asia-Pacific, from Cambodia and Samoa to India, Bangladesh and Papua New Guinea. Covid-19 did not create new weaknesses in global health systems, it exposed the ones that were already there — particularly the risks of applying one-size-fits-all solutions to vastly different social and economic realities.

During the pandemic, Meru supported vaccine rollout efforts across Papua New Guinea and the Pacific, repeatedly advocating for equitable access and locally informed decision-making. She saw first-hand how blunt public health measures failed communities and how much difference good data could make. ‘If we had good data,’ she says, ‘we would have been better at identifying high-risk groups, not just physiologically, but through social determinants as well.’



### Backed by Westpac Scholars Trust

The Westpac research provided Meru with salary support and the flexibility to pursue operational research in health emergencies across the Asia-Pacific. When Covid-19 hit and she needed to pause her research to deploy to Papua New Guinea, the fellowship adapted, allowing her to respond in real time rather than being constrained by rigid research timelines.



The stakes of getting this right are high. In 2023 alone, the World Health Organization (WHO) reported 10.3 million measles cases worldwide, a 20 per cent increase from the year before. These outcomes underscore how quickly hard-won public health gains can be reversed when systems are overwhelmed or under-resourced.

### Meru’s career, while formidable on paper, has been anything but linear.

‘My whole career has been a zig-zag,’ she says. As a young PhD student from India, she doubted her place in science after repeated failed experiments. A supervisor’s reminder — that negative results are still results — became a formative lesson in resilience, one that continues to shape her work whether she is developing vaccines or responding to health crises in real time.

At the heart of Meru’s approach are the stakeholder meetings she runs across the region. Gatherings where frontline health workers, government officials and community leaders see their lived experience reflected back in evidence. ‘If the doctors or nurses start

crying, it means your work has touched a nerve. That they can see the value in what you’re doing.’ These moments of recognition are often where lasting policy change begins, grounded not in distant boardrooms but in the realities of people working on the ground.

Now leading the Infectious Diseases, Immunisation and Emergencies Group at the University of Sydney, Meru also serves on WHO committees, including the Immunization and Vaccines-related Implementation Research Advisory Committee, which looks at evidence for global vaccine policy. Her work matters deeply for Australia. As a nation in the Asia-Pacific region, Australia’s health security is inseparable from the strength of health systems in neighbouring countries. Pandemics do not respect borders, and modelling shows that a severe influenza pandemic alone could cost the global economy trillions of dollars if preparedness and response capabilities are weak.

Meru has seen how technically strong outbreak responses can falter when they scale. ‘Technical skills alone aren’t enough,’ she says. ‘You need governance, coordination and leadership — the ability to bring people together around a shared response.’

This fragility is reflected in the Global Health Security Index, where the global average preparedness score sits at just 38.9 out of 100, well below what is needed to respond effectively to future pandemics.

This is the future Meru is working towards, one where outbreaks are detected earlier, responses are fairer and countries have the local capability to protect their own communities. In that future, success looks like making external expertise largely redundant. ‘It’s one of the few professions where real progress means helping build systems so strong that our role is no longer required,’ she says. ‘That’s how you know things are getting better.’

For now, Meru is focused on building that capability by mentoring the next generation of epidemiologists and public health leaders across the region. Recently, a message arrived from Fiji; a young woman she mentors had been accepted to present at a major international conference. Meru responded with congratulations, encouragement and a burst of celebratory emojis. These moments, the transfer of knowledge and confidence, are the real markers of impact.



## Finding the middle ground

Associate Professor Amy King is reframing how Australia understands Asia by building the expertise and confidence necessary to work across differences.

In 2013, Amy King returned to Australia after five years studying at Oxford. She arrived at the Australian National University (ANU) eager to teach students, many of them current government, military and foreign affairs officials, about China. What immediately struck her was the divide between disciplines. Her colleagues in Chinese studies, historians, economists, literature scholars, possessed an extraordinary depth of knowledge about China but weren't connected to the policy and strategic debates shaping Australia's future. Over in the international relations and security stud-

ies programs, where future policy makers were being trained, scholars described China in abstract terms: a rising power, a strategic challenge, an urgent but unknowable force. The two worlds barely spoke to each other. Deep knowledge wasn't flowing to the people who needed it most. 'China was viewed as this unknowable black box that we had to do something about,' she says. According to Amy, the dominant narrative that China sat outside the post-World War Two international order and is now trying to undermine or

overturn it, is historically and politically inaccurate. China has been involved in shaping the institutions, including the World Bank and the International Monetary Fund, that defined the international order from the start. 'The post-World War Two international order has never been fixed. It has always been shaped by countries working together, even across profound differences. Understanding that history reframes the present. It helps identify where interests might align today, on issues such as climate change, pandemic responses and critical minerals, and where they genuinely diverge.'

However there are significant tensions between that aspiration and Australia's current reality. The Department of Foreign Affairs and Trade reports that Australia's exports to China reached a record \$219 billion in 2023, representing 32.2 per cent of total exports. Yet trust in China to act responsibly in the world has plummeted from 52 per cent in 2018 to just 17 per cent in 2024, according to a Lowy Institute poll. 53 per cent of Australians now see China as more of a security threat than an economic partner.

Meanwhile, reports including Australia's China Knowledge Capability review identify 'critical gaps and serious signs of decline' in the expertise needed to navigate the relationship. The numbers tell a story of deepening economic interdependence colliding with eroding trust and capability.

Amy points to several barriers preventing Australia from building the relationships and regional expertise it needs. There's the persistent othering of China and the wider region, particularly within Australia's political and government class, which has historically been less diverse than the business or cultural sectors. There's also the mental leap required when, traditionally, powerful allies such as Britain and the US have been culturally and racially similar.

'The familiar is very tempting,' Amy says, 'but I'm not sure leaning on the familiar will necessarily solve the challenges that we actually need to solve.'



### Backed by Westpac Scholars Trust

The Westpac Research Fellowship has been transformative for Amy's work in ways that extend beyond traditional research funding. The combination of leadership training and development alongside research support enabled her to work at scale — building teams, leading cultural change, and developing a thriving community of early-career researchers.

The fellowship also connected her to a network of inspiring scholars, including Asian exchange fellows who have gone on to careers in government and the private sector.

[OPPOSITE]  
Archival documentation from the Foreign Ministry Archives of the People's Republic of China discussing China's relationship with Japan during the 1950s.

“We don't all have to look and think alike to find ways of cohabiting the planet.”  
A/PROF AMY KING

### Australia is a diverse, multicultural country.

Amy believes Australia has a unique opportunity to draw on the knowledge, lived experience and language skills of migrant communities to deepen our understanding of the Asia-Pacific region. The goal isn't to erase differences, but to build deeper understanding so countries across the Asia-Pacific, such as China, Japan and Indonesia, become as familiar to Australians as other parts of the world.

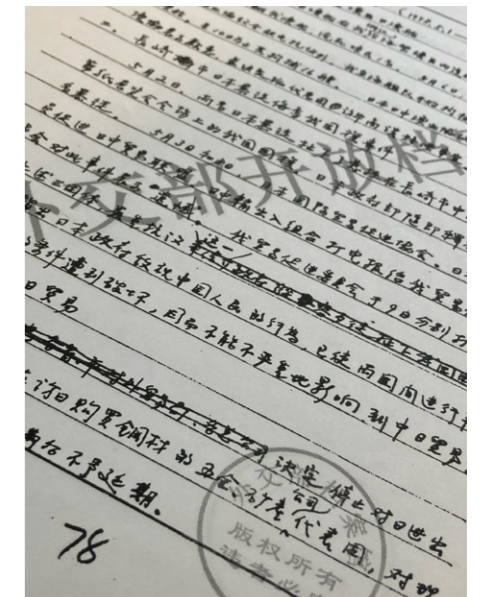
'If Australians consumed news from the [Asia-Pacific] region daily, understood the politics and histories, knew the leaders and cultural currents, the country could navigate with genuine confidence,' says Amy. 'It could identify precisely where interests align and where they don't, without assumptions.'

The risk Amy sees isn't necessarily the headline threat of military conflict over Taiwan, though 59 per cent of Australians rate it as critical. It's the slower, structural challenges. Economic decoupling that undermines the trade relationships Australia relies on to fund

schools, hospitals and infrastructure. The inability to coordinate pandemic responses or develop vaccines without functioning, multilateral frameworks. Climate breakdown that demands regional cooperation on emissions and adaptation. The danger is hyper-fixation on one flashpoint while the complex middle ground gets ignored.

Amy's own work has evolved alongside this thinking. Impact, she's learned, compounds when you work as a team. She's built a thriving community of early-career researchers focused on China and Japan. She's mentored PhD students. She's championed gender equality in international relations and security, developing practical strategies across institutions including the University of South Australia, Oxford and ANU.

'We can do more together,' she says. 'The impact you can have is infinitely greater when you're working as part of a team.'



Amy hopes for a future where China and the region are simply part of the daily news cycle. Where it's unremarkable for Australians to know what's happening in Beijing, Tokyo or Jakarta. Not through state-controlled media, but through Australian journalists on the ground, flourishing university departments, genuine familiarisation. Where working confidently with countries across the region to solve complex global challenges is just par for the course.

'So much of the Australian debate sits at the extremes. China is the enemy. Or there's no problem at all and we're being too mean. Neither story is true, and neither is useful.'

Amy's work is about collapsing distance. Not to erase difference, but to make it navigable. To replace defensiveness with confidence. To build the expertise, the relationships, the institutional culture that allows Australia to work across difference with countries in the region.

“The familiar is very tempting, but I’m not sure leaning on the familiar will solve the challenges that we actually need to solve.”

A/PROF AMY KING

## Impact highlights



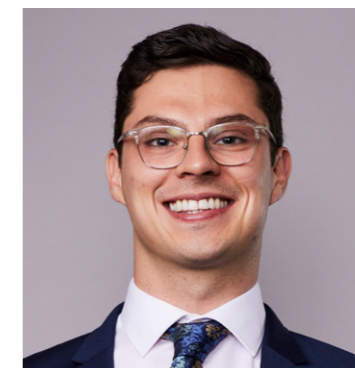
**MEGAN MAACK**  
Social Change Fellow

Founder and CEO of the Childhood Dementia Initiative, working to unify research, policy and care for the 70+ conditions that cause dementia in children.



**COREY TUTT OAM**  
Social Change Fellow

Founder of DeadlyScience, expanding access to STEM education and inspiring Aboriginal and Torres Strait Islander students to pursue science and technology pathways.



**CHARLIE COOPER**  
Future Leader

PhD researcher and provisional psychologist working on suicide prevention and safer online spaces for LGBTQIA+ young people.



**ANNA KALAMKARIAN**  
Future Leader

PhD researcher examining how multidimensional disadvantage and poverty intersect with child protection systems to improve outcomes for children and families.

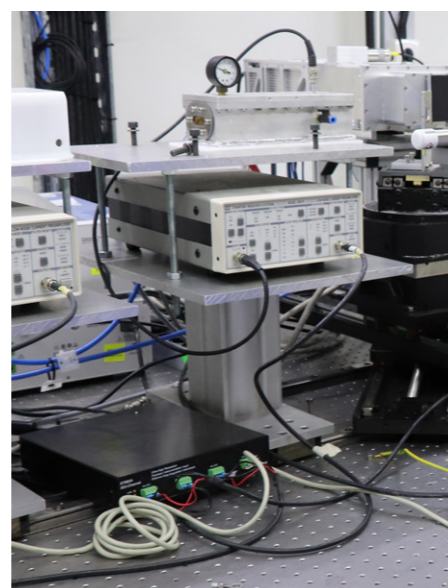
# FROM LAB TO LIFE

Research builds on research. Foundational work matters, even when it takes years to reach application. Knowledge accumulates. Ideas move forward in ways that aren't always direct.

But some researchers build their work around a fundamental question: who will use this, and how? This is from lab to life: research that refuses to stop at discovery. The following scholars are turning breakthroughs into diagnostics, materials and tools the world can actually use.



Dr Samantha Nixon  
2017 Westpac Future  
Leaders Scholar



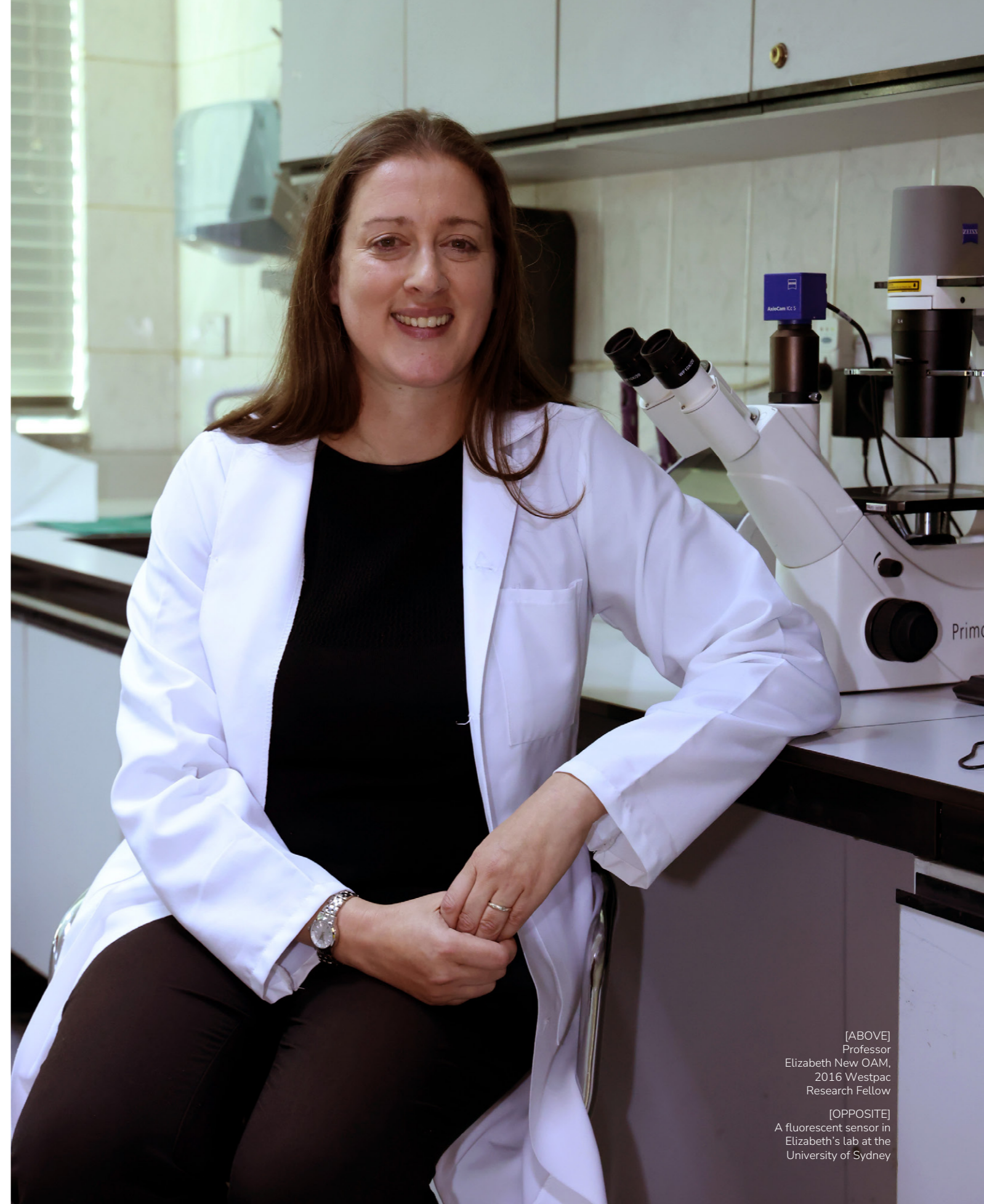
## The chemist making the invisible visible

Professor Elizabeth New OAM is building tools that make the invisible visible. By creating the sensors that allow other researchers to see inside cells, her work measures what was once unmeasurable and responds to questions that have long gone unanswered.

Fluorescent sensors are molecular tools that allow scientists to see inside living cells, tracking how cells respond to stress and whether a treatment is working. But Elizabeth's own research from 2016 identified that less than 1 per cent of sensors developed for medical research are ever applied beyond the original study for which they were created.

Generally, a researcher designs a new tool, publishes the findings, and then the sensor is never used again. For Elizabeth, a professor at the University of Sydney, this represented a fundamental misalignment between research effort and research impact. It forced a reckoning. 'If I want to be a scientist and a researcher, what is the meaning that I want to get

from it?' The answer wasn't more awards, papers or recognition. It was work that would be genuinely used to answer questions that mattered. Elizabeth's response has been to build tools with a different purpose: sensors designed to be used, shared and integrated into the work of others. It meant starting not in the lab, but with the people who would use them.



[ABOVE]  
Professor  
Elizabeth New OAM,  
2016 Westpac  
Research Fellow

[OPPOSITE]  
A fluorescent sensor in  
Elizabeth's lab at the  
University of Sydney



## Backed by Westpac Scholars Trust

The Westpac Research Fellowship gave Elizabeth the time to undertake commercialisation training, which became a pivot point in how she approached research and impact. Beyond funding, the program empowered scholars to practice leadership: speaking on panels, organising events, learning from business leaders outside academia how to engage, connect and lead with intention.

Along with her team, she began designing chemical sensors that allow scientists to look inside living cells and watch what was happening at a molecular level. One focus was oxidative stress, a natural process that accompanies aging but is also associated with many diseases. The team developed a platform for sensing oxidative stress in cells over time, tracking whether cells could recover or were irreversibly damaged.

A bioreagents company eventually licensed the technology and added the sensors to their catalogue, but the real validation came from the research community itself. Emails from researchers asking to collaborate. Papers applying the tools to Alzheimer's research, Parkinson's, cancer and bacterial infections. 'It shows that our sensors are a useful tool,' Elizabeth says. 'They've enabled other people to study these diseases.'

More recently, her focus has shifted toward clinical diagnostics, including measuring chemotherapy drugs in the blood. In Australian hospitals, if you receive intravenous antibiotics, clinicians will routinely measure the drug level to ensure it's not too high or too low. But for chemotherapy, that's not standard practice. A hospital-based study reported around 46 per cent of patients undergoing treatment receive a platinum-based drug at some stage. Approximately three-quarters of those patients need a dose reduction after the first round because the side

effects are so severe: hearing loss, nerve damage, nausea. The toxicity is predictable yet the dosing is still blunt.

Elizabeth's team spent eight years developing a method to measure platinum drugs in blood with precision. The breakthrough didn't come from the chemotherapy project itself. It came from a Westpac Scholars Trust supported project on environmental sensing, the process of detecting and measuring chemical changes in natural environments, which unlocked the foundational science they needed: machine learning and complex data analysis that opened up an entirely new field of research. Five groups in Australia are now working in this space, all stemming from her work. Some are former students. Others sought her help to develop their own tools.

The work moved toward commercialisation when a Master of Business Administration program selected the project for their students to investigate its potential. One student, Alex, saw the promise. Elizabeth hired him to do business development, which led to venture capital funding, the creation of a startup, and Alex coming on board as general manager. 'You need to share the same vision,' Elizabeth reflects, 'even though you come with different expertise.'

Elizabeth is currently on sabbatical in Jordan, consulting for SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East), the only synchrotron



“We cannot be selfish as scientists”

PROF ELIZABETH NEW OAM

(a large-scale research facility that uses powerful beams of light to study materials at the molecular level) in the Middle East and North Africa region. It serves as a multinational scientific resource for researchers across the region and plays an important role in 'Science for Peace' initiatives.

The experience has shifted her thinking. Training researchers from the Global South, she now understands, isn't about teaching them to use the most advanced microscopes. It's about equipping them to be scientific lead-

ers and communicators where they live, with the resources they have.

'We cannot be selfish as scientists,' she says. It's a principle she's carried from the people who championed her: mentors who put her name forward, gave up opportunities to give her a chance, supported her when she was still unproven.

The proof of her approach is now visible across the field. In laboratories across Australia and beyond, researchers are using Elizabeth's sensors to answer questions she

never anticipated. It has been 10 years since her team first published their oxidative stress sensors, and they are now being applied by researchers in ways that reveal new dimensions of disease. The platinum diagnostic platform is moving closer to clinical reality. Former students are building their own research programs, extending the field she helped establish.

This is the compound effect of building well: not a single breakthrough moment, but a steady accumulation of capacity, knowledge and possibility.



## It's all just waves

For Professor Ivan Kassal, a theoretical chemist and professor at the University of Sydney, quantum mechanics isn't magic. It's hard work and asking questions, until breakthroughs deliver.

[ABOVE AND  
OPPOSITE]  
Professor Ivan Kassal  
2016 Westpac  
Research Fellow

Ask Ivan for a dinner party fact about quantum mechanics and he may disappoint you. 'There's a lot of mystification around it,' he says. 'Some people make it seem like arcane secrets only wizards can unlock.' But strip away the hype and what's left is simpler than you'd think: it's all just waves. Just the physics of really small things behaving in ways that aren't visible to the naked eye.

His career hasn't been built on eureka moments. It's been built on gradual realisations, the kind that start with 'hmm, this is weird' rather than lightning bolts of genius. At the University of Queensland, colleagues working on organic solar cells kept asking him questions about quantum mechanics. The models they were using didn't add up. 'I just didn't get it,' he recalls. 'It didn't make sense.' So he got curious.

The field was using classical models to explain how charge moved through organic solar cells, particles hopping from one molecule to another like stepping stones. But quantum mechanics doesn't work that way. At the quantum level, electrons behave as waves, meaning they can spread across multiple molecules simultaneously rather than jumping one at a time. And when Ivan and his collaborators put the wave behaviour back into the models, the predictions improved by orders of magnitude. Sometimes 100 times better. Suddenly, devices that seemed to work for mysterious reasons made sense. It wasn't mysticism. It was just that people had been using the wrong framework.





## Backed by Westpac Scholars Trust

The Westpac Research Fellowship gave Ivan the freedom to pursue high-risk, boundary-crossing research at a pivotal career moment. It provided salary support that helped him secure a permanent position at the University of Sydney in 2017, but just as importantly, it offered a badge of recognition and a network beyond his discipline. Preparing for the fellowship interview forced him to translate quantum mechanics for non-scientists, a skill that has shaped how he communicates the importance of his work ever since. The continuing connection, including opportunities to serve on selection panels, has deepened his thinking about leadership, collaboration and what actually matters when identifying talent.

The science has the potential to accelerate how we design materials for renewable energy at a moment when efficiency gains matter. The International Renewable Energy Agency (IRENA) reports in 2024, renewables accounted for 92.5 per cent of global power capacity expansion. Solar costs have fallen 90 per cent since 2010. But global emissions still hit a record 37.4 gigatonnes in 2023.

Sitting between disciplines has shaped Ivan's work. He got his PhD in chemical physics, neither chemistry nor physics, but somewhere in between. His physics colleagues think he's a chemist. His chemistry colleagues think he's a physicist. 'It's not a compliment either way,' he says. It's forced him to engage with other areas of expertise, to learn other people's languages until he understands what they're actually trying to solve. 'The discomfort is absolutely necessary,' he says. 'You have to get past it.'

### That willingness to sit in discomfort has enabled some of his most significant work.

In 2025, Ivan and his collaborators simulated a chemical reaction on a quantum computer for the first time. Normally, predicting how molecules behave requires enormous computing power. Compared to the best previous method on a quantum computer, Ivan's approach is around a million times more efficient, meaning it could eventually help scientists design new drugs or solar materials without endless trial and error in the lab.

It started over coffee at a cafe on the University of Sydney campus. A colleague mentioned they had a trapped ion quantum computer – a device that traps individual ions (charged atoms) and holds them in place. They were looking for things to do with it. Ivan had an idea: the ions in the quantum computer jiggle. Molecules jiggle. Maybe they could use one to simulate the other.

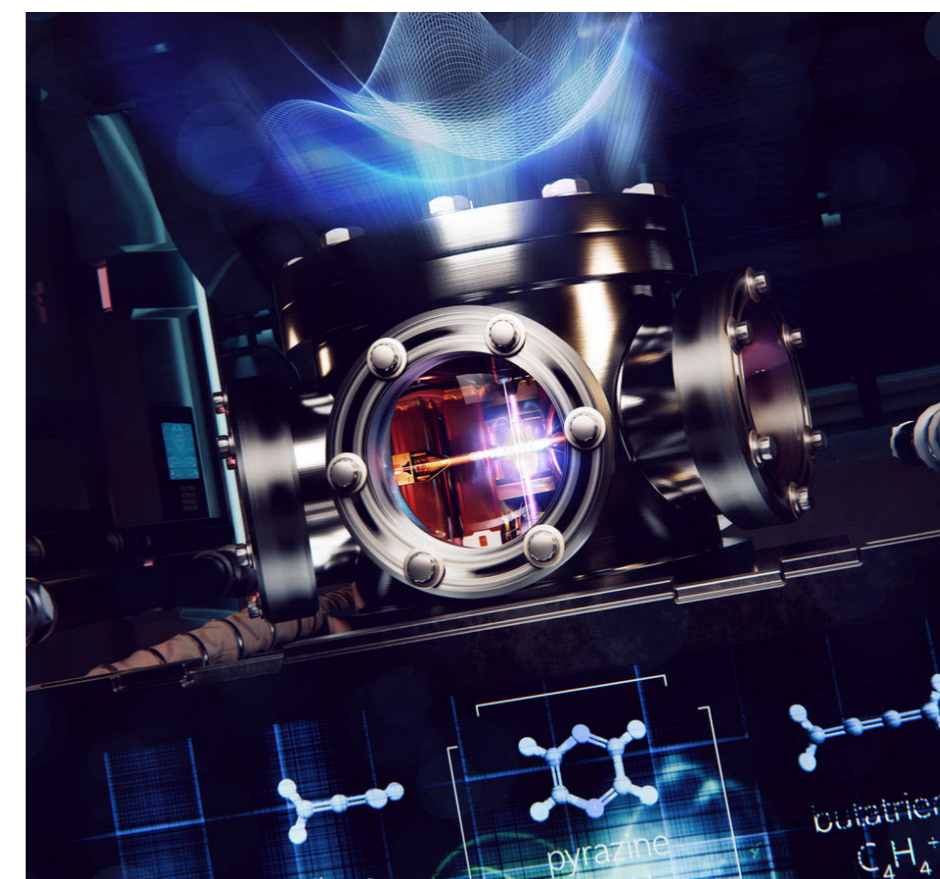
The team didn't realise at first how transformative the approach would be. Normally, simulating a vibrating molecule on a quantum computer requires tens of qubits, the basic unit of quantum computing, which are extremely difficult and expensive to produce. By using the quantum computer's own natural vibrations to represent molecular vibrations, they bypassed that entirely.

'We didn't know at the time that this would be such a massive advantage,' Ivan says. But the implications are significant. Right now, if you want to design a new drug or a better solar cell material, it's trial and error. You make something in the lab. It doesn't work. You try again. Maybe 99.99 per cent of attempts fail. Ivan's work is about changing that. It's about simulating the full journey of a molecular reaction, not just the start and end points, but everything in between. Understanding how light interacts with molecules. How bonds break and form. How energy moves.

This matters for solar energy cells. It matters for photodynamic therapy, where molecules absorb light to treat disease. It even matters for sunscreen, which dissipates light energy rather than letting it damage DNA. 'There's a lot of trial and error,' Ivan says. Accelerating that would really improve people's lives.

[RIGHT]  
Artist's impression  
of Ivan's work.  
Image credit: Journal  
of The American  
Chemical Society.

“We didn't know at the time that this would be such a massive advantage. That's how most science actually works.” PROF IVAN KASSAL



He's optimistic about what becomes possible when quantum simulation matures, not because technology solves everything, but because 'we've handled change reasonably well for the last 400 years since the Enlightenment.' New drugs will come out. Better materials. Faster discovery. People will take it for granted. 'Ozem-

pic was a miracle for a month,' he says. 'Then it was just another option.'

But for now, he rejects the excessive hype that surrounds quantum computing. 'Advanced technology can seem mysterious,' he says, 'but that's where scientists should step in to explain it.' Strip it back and it's simple: waves, hard work and asking the right questions.

# The scientist turning fear into cure



Dr Samantha Nixon was once terrified of spiders. Now she's mining their venom for the molecules that might cure diseases affecting over 1.6 billion people worldwide.

[LEFT]  
Spiders have the most complex venom of any venomous animal on Earth.

[OPPOSITE]  
Dr Samantha Nixon  
2017 Westpac  
Future Leaders  
Scholar



## Backed by Westpac Scholars Trust

The Westpac Future Leaders Scholarship enabled Samantha to expand her research internationally, establishing collaborations to test spider venoms against human parasites.

She spent time in a US pharmaceutical company learning drug development pathways and conducted fieldwork in the Amazon. The fellowship's leadership program taught her that leadership is about inspiring a vision and supporting people on the journey. But perhaps the most enduring impact has been the community of scholars: a network she can call on for mentorship, peer support and real-world translation of research.



'If an orb-weaver crossed my path, I would double back and cry,' Samantha recalls. 'That was it. Day over.' Samantha was a certified arachnophobe. Then she discovered that spiders have the most complex venoms of any venomous animal, and hidden within that chemistry might be molecules capable of shutting down chronic pain.

So she did what most arachnophobes could never imagine: she volunteered in a spider lab. She looked after them. She named them. Beyonce the tarantula was instrumental in helping her overcome her fear. What started as exposure therapy became something else entirely: a career built on the premise that our deepest fears might hold unexpected answers.

Most venom researchers were focusing on chronic pain, epilepsy or developing insecticides.

Samantha chose a different path. She made parasitic diseases her focus. The rationale was elegant: spiders are the world's greatest insect hunters and there's significant drug target overlap between insects and parasitic worms. Maybe the venoms killing insects could also kill the worms.

Many advised against it. But Samantha was adamant. 'You have to go against what everyone else is doing,' she says now. 'That's where you're going to find the new discoveries.'

And it worked. Her PhD research identified molecules that could kill parasitic worms devastating the Australian sheep industry, work that would later expand to human parasites causing neglected tropical diseases. 'It was a wonderful moment,' she says, 'to go from being so afraid of these spiders to realising that actually they're the good bugs helping us fight the

bad bugs, the blood-sucking worms that are actually the real threat.'

The stakes are considerable. A WHO report highlights that in 2022, 1.62 billion people required interventions against neglected tropical diseases (neglected as they are almost absent from the global health agenda, unlike diseases such as HIV or malaria). While these conditions cause 120,000 deaths annually, and cost developing communities billions of dollars in health costs and lost productivity, they remain persistently under-resourced and under-researched.

Closer to home, the problem is equally urgent. Barber's Pole Worms, highly dangerous parasites living in the digestive tracts of sheep, cost the Australian sheep industry upwards of \$450 million a year, according to the NSW Government. Add parasitic flies and the figure climbs by another \$400 million. The problem is that these parasites have become resistant to all available classes of drugs and limiting what farmers can do to protect their sheep. It's a significant animal welfare issue and an economic burden threatening the sustainability of the industry.

'Australia is a relatively small market from the perspective of pharmaceutical companies,' Samantha explains. 'So this problem doesn't attract the pharmaceutical investment it warrants.' Drug-resistant parasitic worms don't just affect sheep. New reports indicate that they are spreading in our pets and threatening human health. With one in four people still infected with parasitic worms, the urgency for novel drug sources has never been greater. Spider venoms might be the overlooked pathway needed to find new treatments.

[RIGHT]  
Australian  
funnel web spider

“I really have the best job in the world. I get to dig up hairy, lethal spiders and turn them into new potential medicines that could help millions of people”

DR SAMANTHA NIXON



## Sam's fieldwork has taken her to some of the most remote and precious places on Earth: the Amazon, Antarctica and the Australian Outback.

In these places, she's struck by something fundamental. 'People and ecosystems depend on each other,' she says. 'It's a reciprocal relationship. Spiders might hold the cure to a disease, but if we destroy their habitats, we lose access to those cures. 'Nature is helping us,' she says, 'but we also need to help nature.'

Her favourite spiders, if she had to choose, are the Australian funnel web. Specifically, the K'gari funnel web, a large species sometimes called the

long-tooth spider for its exceptionally long fangs. 'Even though they have this reputation of being the world's deadliest spider, they're actually quite sweet,' she says. 'They're not aggressive, they're defensive. They spend most of their time just hanging out in their burrow, and if they hear something big coming, they actually retreat.'

For Samantha, the day-to-day work is sustained by something else: mentoring the next generation. She's now spoken to more than 1,500 students, particu-

larly in schools outside metropolitan areas. It's a question of visibility. Globally, UNESCO reports women make up just 33.3 per cent of researchers and only 35 per cent of STEM graduates. Changing that begins with showing young people what a scientist actually looks like and why the work matters.

She reflects: 'I really have the best job in the world. I get to dig up hairy, lethal spiders and turn them into new potential medicines that could help millions of people.'

# Impact highlights



**GABRIELLE MORDY**  
**Social Change**  
**Fellow**

Founder and CEO of Studio A, creating professional pathways for artists with intellectual disability to build sustainable creative careers.



**TAYLOR COWELL**  
**Future Leader**

Veteran and MBA graduate focused on building more inclusive, resilient veteran communities and pathways from defence to meaningful employment.



**MARY FREER**  
**Social Change**  
**Fellow**

Founder of Compassion Revolution, leading global work on compassionate leadership and cultural change in health, aged care and workplaces.



**A/PROF**  
**YU HENG LAU**  
**Research Fellow**

Synthetic biologist and chemist engineering protein systems to improve carbon capture and boost crop productivity for a more sustainable food future.

“Nature is helping us,  
but we also need  
to help nature.”

DR SAMANTHA NIXON



# LOOKING FORWARD 10 years into forever

## **One Thousand is a marker of momentum.**

The next decade will bring new scholars, new challenges and new forms of leadership. What won't change is the commitment to back people with the courage to lead, the generosity to collaborate and the determination to turn ambition into action.

Their ideas are taking root in labs, communities, classrooms and policy rooms. Their networks are deepening. Their influence is growing in ways we are only beginning to see. When you invest in people, impact emerges in ways we cannot plan for.

We are ten years into forever, and Australia's future is being shaped, one scholar at a time.

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# Scholars

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