



Annual Review 2026



Associate Professor
Alireza Ahmadvand,
Member Grant
recipient and
winner of this year's
Miss Lewis Award

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Avant Foundation

Creating transformational change in healthcare

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In the spirit of reconciliation, Avant acknowledges the Traditional Custodians of Country throughout Australia, and their connections to land, sea and community. As a national organisation, we pay our respects to Elders past and present, of the lands on which we gather and work, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Chair’s message

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thank you to my fellow committee members, our independent judging panelists, and our Foundation management staff for their expert input throughout the year. None of this would be possible without your energy and enthusiasm.



All doctors aspire to achieve the best outcomes for their patients. This is the key to a rewarding career. Sometimes that comes from better bedside options and decisions. Other times the change is needed at another point in the complex ecosystem that delivers healthcare. So, the questions we ask at Avant Foundation are not only about what we should fund, but what conditions in the health system can we help to improve to achieve our ambition of better care and better careers for doctors?

In 2026, our work continues across Bursaries, Member Grants, Research Grants and our flagship Transformation Grants, with a growing emphasis on strengthening the systems that shape the practice of medicine. Bursaries influence who enters the profession. Member Grants advance care at the frontline. Research Grants expand the evidence base for better decisions. Transformation Grants focus on how the system itself is designed and governed. Together, they form a continuous pathway from entry into medicine through to system-level reform, each stream reinforcing the others.

Our Bursary program expanded significantly in 2026, with partnerships now spanning all 22 medical schools through their equity scholarship pathways. Along with our ongoing commitment to the Australian Indigenous Doctors’ Association, this program is designed to increase equity of access for disadvantaged students and to diversify representation in the profession.

Member Grants continue to support clinician-led innovation, with a particular focus on early-career doctor scientists. Congratulations to Associate Professor Alireza Ahmadvand, recipient of this

year’s Miss Lewis Award for his work on AI scribes in GP mental health consultations.

Research Grants and Transformation Grants remain our clearest lever for system change, examining how care is organised, governed and delivered at scale. Congratulations to Adelaide University, in collaboration with the Royal Australasian College of Surgeons, recipient of our \$1m Transformation Grant in 2026, for their three-year quality improvement project to significantly improve surgical outcomes by identifying and addressing deficiencies in non-technical skills.

Although each of these grant funding streams focuses on a different part of the healthcare system, their collective impact is measured by one outcome: better care and better experiences for the patients and communities our members serve.

Each year I reflect, with some sadness, on the excellent submissions we cannot fund, and the effort poured into them by talented doctors and scientists across the country. We are working to streamline our process and reduce that burden, and I remain humbled by the quality and breadth of the work we do support.

I’m pleased to see the continuation of our Avant Member story series in this publication. Congratulations to Associate Professor Marie Sinclair on the development of her research career since her first Avant Member Grant in 2013 for her work on malnutrition and sarcopenia in patients with advanced liver disease. And a special note of appreciation to Professor Christine Bennett AO, for a lifetime of dedication to improving the Australian health system.

The Foundation played a key role this year in Avant’s appointment of Macquarie University’s Australian Institute of Health Innovation to conduct a three-year risk assessment of the Australian health system. This report card will draw on a wide range of expert insight and data to identify where the future risks to our healthcare lie, with first results expected in April 2027. This year, the Foundation Committee also adopted a set of founding principles and a manifesto which will stand as an enduring statement of our purpose for future generations of custodians to follow.

I would like to thank Adrian Urquhart for his contribution to the Foundation Committee over recent years and wish him every success as Avant’s Group CEO and Managing Director. We welcome Jenny Saliba, Avant’s new Chief Financial Officer, and Mick Reid AM – one of Australia’s most respected health systems experts – as new Committee members.

Finally, thank you to my fellow Committee members, our independent judging panelists, and our Foundation management staff for their expert input throughout the year. None of this is possible without your energy and enthusiasm.

We look forward to progressing Avant Foundation’s commitment to improving quality, safety, professionalism, equity and sustainability of Australian medicine and healthcare over the year ahead.

Beverley Rowbotham

Associate Professor Beverley Rowbotham AO
MBBS (Hons 1), MD, FRACP, FRCPA, FAICD
Chair – Avant Foundation

Building a connected health system: from entry to transformation

In 2026, Avant Foundation continues to strengthen the medical profession through a coordinated, increasingly systems-focused portfolio, spanning Bursaries, Member Grants, Research Grants and Transformation Grants.

Guided by a clear purpose – to drive transformational change through medical research, education and health programs – the portfolio is evolving into an integrated system of investment rather than a set of standalone initiatives.

A connected framework for impact

Each funding stream plays a distinct but interconnected role:

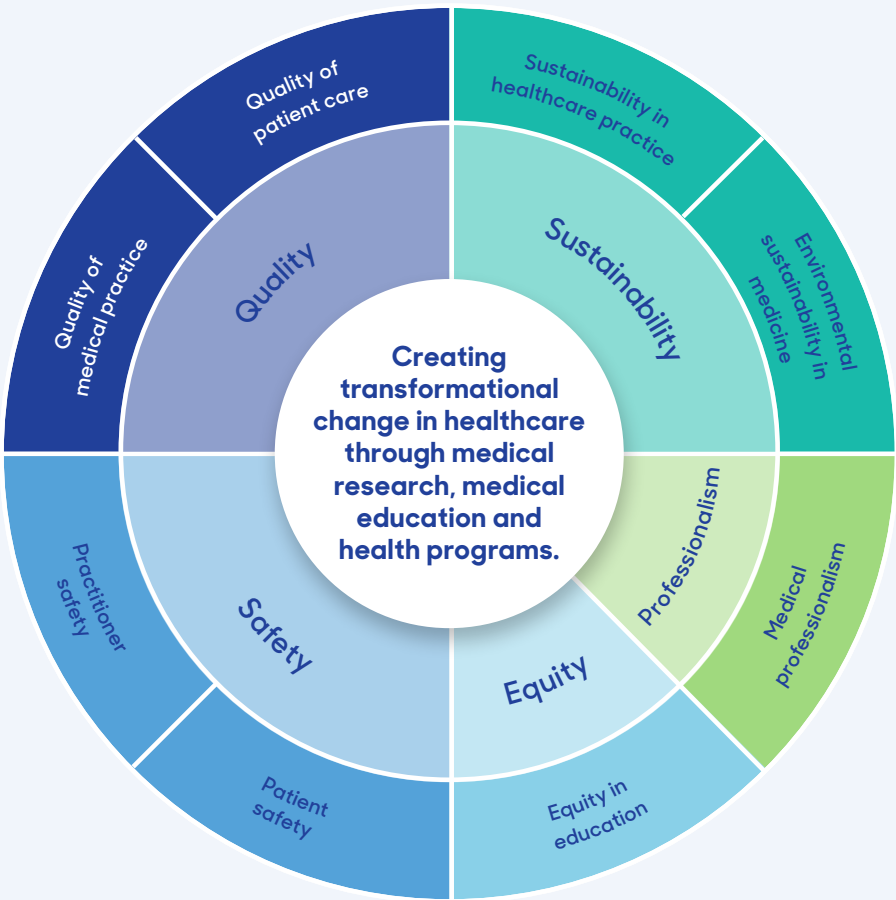
- **Bursaries** strengthen workforce entry and diversity by reducing structural barriers and improving equity of access
- **Member Grants** support clinician-led innovation to improve frontline care and workflows
- **Research Grants** build the evidence base for safe, effective system-wide decision-making
- **Transformation Grants** enable structural redesign and embed improvements at scale.

The focus is not only on expanding funding, but on strengthening how these streams connect across health, education and professional systems – creating impact that is scalable, sustainable and embedded.

Applicants are required to select one of the Foundation’s impact objectives and associated goals that best align with their project (for example, the objective of Quality and the goal of Quality of medical practice) and then develop their own project-specific metrics to describe the measurable outcomes they expect to achieve. This researcher-designed approach recognises that meaningful research impact extends beyond traditional academic outputs and allows applicants to define measures that are most appropriate for their work. Applicants are encouraged to consider short-, medium-, and long-term impacts, including knowledge creation, practice change, policy influence, workforce development, patient outcomes, system improvements, and broader health or societal benefits. If awarded funding, the proposed metrics will be refined collaboratively with the Foundation before the project commences, and the final outcomes will be assessed against the agreed measures at project completion.

Investment in Australia’s future healthcare

	\$1.2 million Transformation Grants
	\$560,000 Member Grants
	\$500,000 Research Grants
	\$180,000 Bursaries
TOTAL \$2,440,000	



Our purpose

Creating transformational change in healthcare through medical research, medical education and health programs.

Research



We are committed to funding research projects that push the boundaries of knowledge and innovation in healthcare, ultimately improving patient outcomes and the effectiveness of healthcare delivery. By supporting cutting-edge research, we aim to address critical challenges, such as improving disease prevention, developing new treatments and optimising healthcare systems.

Education



Medical professionals are the cornerstone of effective healthcare. We are dedicated to alleviating the barriers that hinder their access to education and ongoing professional development. Through scholarships and grants, we help ensure medical students and healthcare practitioners have the opportunities and resources they need to excel in their careers. In promoting equity, we prioritise initiatives that provide access to education for underrepresented groups and foster a diverse, inclusive healthcare workforce.

Programs



We collaborate with healthcare professionals, institutions and organisations to implement programs that directly enhance patient care and overall health outcomes. From improving clinical practices to driving systemic change in healthcare delivery, our funded programs aim to benefit the lives of patients and communities. These projects focus on areas such as patient safety, personalised care and expanding access to healthcare services, particularly in underserved and marginalised regions.

Impact objectives and goals

We deliver against our purpose by focusing on five impact objectives and associated goals that aim to address the challenges in healthcare delivery:



Professionalism

Foster a culture of professionalism among medical practitioners, ultimately leading to improved patient care and health outcomes.



Quality

Advance patient care by prioritising high standards in medical practice and patient outcomes.



Safety

Ensure the safety of patients and practitioners by supporting innovative research in clinical safety and risk management.



Equity

Reduce disparities in medical education and healthcare delivery, ensuring that opportunities for education and career advancement are available to all, regardless of background.



Sustainability

Foster sustainable healthcare practices through eco-friendly policies, resource management and long-term economic solutions for healthcare systems.

Governance overview

Avant Foundation operates within a structured governance framework to ensure transparency, accountability, and strategic alignment across its funding activities.

Foundation Committee

The Foundation Committee provides strategic and governance oversight, ensuring funding aligns with the Foundation's purpose and objectives. Its responsibilities include:

- setting funding priorities
- approving major grants and partnerships
- overseeing governance, risk, and compliance
- monitoring outcomes and impact
- aligning activities with healthcare system needs.

The Committee is supported by a management team consisting of the Chief Medical Officer, Head of Grants, Foundation Operations Manager and Foundation Coordinator. All are employees of Avant Services Co. Pty Limited.

Grant assessment panels

Specialist panels provide independent, expert assessment across grant programs.

Transformation Grant panel

Evaluates large-scale initiatives focused on system redesign and innovation, considering impact, scalability, implementation capability, and alignment with patient safety.

Member Grant panel

Reviews clinician-led projects that improve patient care and workflows, focusing on practical impact, feasibility, and innovation at the point of care.

Research Grant panel

Assesses major research initiatives based on scientific quality, translational potential, collaboration, and contribution to evidence-based healthcare.

Together, the Committee and panels ensure a governance model that combines strategic oversight with expert review, supporting credible, transparent, and high-impact investment in Australia's healthcare system.

Avant Foundation Committee



Associate Professor Beverley Rowbotham AO (Chair)
MBBS (Hons 1), MD, FRACP, FRCPA, FAICD



Associate Professor Matthew Doane
MD, MPH, DABA, FANZCA



Professor Michael Kidd AO
MBBS, MD, FRACGP, FAHMS



Jenny Saliba
BEd, MBA, CA, GAICD



Dr Penny Browne OAM
MBBS, Dip Obst RCOG, FRACGP, MHL, GAICD



Dr Steven Hambleton AM
MBBS, FAMA, FRACGP (Hon), FAICD



Professor Steve Robson
BMedSc, MBBS, MMed, MPH, MD, FRANZCOG, FRCOG, FACOG



Michael Reid AM

Avant Foundation Bursaries



Expanding the medical pipeline: Equity-focused Bursary streams in 2026

In 2026, Avant Foundation continues to strengthen the future medical workforce through two complementary Bursary streams: its long-standing partnership with the Australian Indigenous Doctors' Association (AIDA), and a national university-based Bursary program. While delivered separately, both streams are united by a clear objective, improving equity of access to medical education and supporting a more diverse, representative and sustainable healthcare system.

AIDA Bursary program

Established in 2017, Avant Foundation's partnership with AIDA remains a cornerstone of its equity commitment. Delivered directly through AIDA, this Bursary stream supports Aboriginal and Torres Strait Islander medical students through financial assistance combined with access to culturally grounded mentorship, leadership development and professional networks.

This approach recognises that improving representation in medicine requires more than financial support alone. By embedding students within a strong national community of Indigenous doctors and trainees, the program supports not only access, but also retention, cultural safety and long-term success.

National university Bursary program

In parallel, FY26 marks the expansion of a university-led Bursary program designed to address financial and structural barriers at scale. Delivered through all 22 universities across Australia offering medical degrees, the program is embedded within existing scholarship frameworks, enabling efficient administration and long-term sustainability.

The university Bursary provides \$10,000 per student per year across the Doctor of Medicine program, with funding delivered through multi-year agreements to ensure continuity of support. The model is explicitly equity-based, with no administration fees, ensuring the full value reaches students.

Equity-based eligibility framework

A defining feature of the university Bursary program is its structured equity framework, designed to prioritise students experiencing one or more forms of disadvantage. Eligibility considerations include:

- Aboriginal and Torres Strait Islander status
- residency in regional, rural or remote areas
- low socio-economic status
- living with disability
- identification as LGBTIQ+
- culturally and linguistically diverse backgrounds.

This multi-dimensional approach reflects a contemporary understanding of disadvantage, recognising that barriers to medical education are often overlapping and cumulative.

Strengthening access, retention and workforce diversity

Across both streams, the focus extends beyond entry into medicine to include retention, progression and long-term workforce participation. By reducing financial pressure and strengthening support structures, the programs enable students to complete their training and contribute meaningfully to the healthcare system.

This dual-stream model reflects Avant Foundation's broader shift toward system-level impact, investing not only in individual students, but in the structures that shape access, opportunity and outcomes.

Through these initiatives, Avant Foundation continues to support a more inclusive and resilient medical workforce, better equipped to deliver equitable and culturally responsive care across Australia.

Shared commitment to change: AIDA and Avant Foundation

For almost a decade, Avant Foundation and the Australian Indigenous Doctors' Association (AIDA) have worked together to support the next generation of Aboriginal and Torres Strait Islander doctors.

AIDA's work spans mentorship, advocacy and leadership development, with a focus on strengthening the systems in which Indigenous doctors work and creating pathways for them to lead change across healthcare.

"That strength and resilience already exist," CEO Associate Professor Malouf says. "Our role is to create the systems that enable it."

The 2026 Avant Foundation Bursary recipient, Matthew Joseph McGregor, is a Darug man, former paramedic and first-year medical student at Western Sydney University.

While working as a paramedic on the South Coast of New South Wales, Matthew saw first-hand the barriers regional and remote First Nations communities can face when accessing healthcare. The experience motivated him to pursue medicine.

He also volunteers with the Merana Aboriginal Community Association, providing transport for Elders to medical appointments and community activities. These experiences have shaped his ambition to provide care that is both clinically strong and culturally safe.

"I want to help build care that is clinically strong, culturally safe and closer to home for our regional communities."

For Matthew, the Bursary provides practical support while he balances his medical studies with his commitment to community.

"This bursary allows me to focus on becoming the best doctor I can be while continuing my commitment to community service. It is an investment not only in my education, but in the people and communities I hope to serve."

Associate Professor Malouf says Matthew's commitment to community reflects the qualities needed in the future medical workforce.

"Matthew has already demonstrated an outstanding commitment to community through his work as a paramedic, volunteer and now medical student."

As the partnership approaches its tenth year, its focus is on supporting emerging leaders who can contribute to a health system that delivers culturally safe care and better outcomes for Aboriginal and Torres Strait Islander communities.



I want to help build care that is clinically strong, culturally safe and closer to home for our regional communities.



CEO Associate Professor Peter Malouf



Matthew Joseph McGregor

Past Member Grant recipient: where are they now?



Grants such as Avant Foundation's Member Grants are key to supporting young researchers to pursue their research interests.



Associate Professor Marie Sinclair

From early support to global impact: Associate Professor Marie Sinclair's research journey

Associate Professor Marie Sinclair was an early recipient of an Avant Foundation member grant in 2013, which supported her investigation into malnutrition and sarcopenia in patients with advanced liver disease. This work laid the foundation for her NHMRC Early Career Fellowship in 2017, through which she advanced a program of research examining testosterone supplementation and other therapies to improve muscle mass in patients awaiting liver transplantation. At the time, this was a critical unmet need, up to 70–80% of patients on transplant waiting lists were affected by significant muscle wasting, with limited evidence-based treatment options available.

Marie's initial study focused on appendicular lean soft tissue mass (ALST) as a primary endpoint, powered to detect a clinically meaningful 10% improvement over 12 months. The design accounted for the realities of a high-risk population, including attrition due to transplantation, non-compliance, or death, with intention-to-treat and per-protocol analyses incorporated to preserve scientific validity. Conducted at Austin Health, the study also embedded strong safety oversight, with regular monitoring and reporting pathways to ensure patient wellbeing. Beyond muscle mass, the research aimed to demonstrate improvements in bone mineral density, functional status, and quality of life outcomes directly relevant to both patients and health systems.

Now a liver transplant physician at Austin Health in Melbourne, Associate Professor Sinclair says, "Grants such as Avant Foundation's Member Grants are key to supporting young researchers to pursue their research interests. I am grateful for the financial support from Avant that gave me the opportunity to focus on research in my early years and thus develop into a clinical researcher who continues to combine clinical work with academic pursuits"

Marie has now established herself as a leader in hepatology, with a sustained focus on sarcopenia, nutrition, obesity, and portal hypertension in cirrhosis. Her work has been central to shifting the field's perspective, positioning muscle loss not simply as a by-product of liver failure, but as a key and potentially modifiable determinant of outcomes, including survival, transplant success, and healthcare utilisation. Her research integrates clinical trials, translational science, and health services research, with an emphasis on personalised and multidisciplinary care.

Recent work reflects broad and growing impact

Her recent publications from 2025–2026 highlight the breadth of her contributions. These include studies investigating continuous terlipressin infusion as a home-based therapy for complications of portal hypertension, as well as work

evaluating pharmacological approaches to sarcopenia, including hormonal therapies. She has also contributed to national consensus guidelines on the diagnosis and management of portal hypertension in Australia, reflecting her role in shaping clinical standards. In parallel, her collaborative work has explored cardiovascular complications of cirrhosis, transplant outcomes, and disparities in liver cancer care across metropolitan and non-metropolitan populations.

In addition to her research output, Associate Professor Sinclair plays a key role in mentoring emerging clinicians and researchers, supervising multiple PhD candidates and contributing to international multi-centre trials. Her ongoing work is increasingly focused on refining risk stratification and developing targeted interventions that address the complex interplay between nutrition, metabolism, and liver disease.

More than a decade on from her initial Avant-supported research, Associate Professor Sinclair has translated an early clinical question into a comprehensive and influential research program. Her work continues to shape both practice and policy, with a clear focus on improving outcomes and quality of life for patients living with cirrhosis.

Member Grants: supporting clinician-led research



Since 2012, the Member Grants program has supported clinician-led research designed to improve patient care, safety, and the functioning of clinical systems in real-world practice. In 2026, the Foundation awarded \$560,000 across 28 projects. These grants were structured to support both innovation and practical system improvement across diverse clinical environments.

Funding included:

- seven \$50,000 grants supporting structured 12-month research projects embedded in clinical settings
- five \$25,000 grants enabling more flexible or part-time research models for practising clinicians
- sixteen \$5,000 microgrants supporting early-stage innovation, education, equipment and career development
- one \$5,000 Miss Lewis Award recognising outstanding contribution and innovation.

Collectively, these projects span oncology, obstetrics, cardiology, hepatology, rural health, refugee health, and digital health systems, reflecting a broad effort to improve how clinical care is delivered across settings.

The Miss Lewis Award

This award recognises the most outstanding Member Grant recipient and honours the legacy of pioneering paediatric and spinal neurosurgeon Miss Elizabeth Lewis. In 2026, the Award was presented to Associate Professor Alireza Ahmadvand for his work on the use of artificial intelligence scribes in mental health consultations, systems designed to automatically generate clinical documentation from patient consultations.

This work is particularly significant from a systems perspective, as it targets one of the highest burden administrative workflows in healthcare: clinical documentation. By improving accuracy, efficiency and clinician time allocation, it directly impacts workflow design and system performance in primary care.



Dr Yannick De Silva,
winner of a microgrant

\$50,000 Grant recipients

Applicants	Key focus
Dr Debjyoti Karmakar	A hybrid human-artificial intelligence (AI) system for early foetal asphyxia detection in labour
Dr Geetanjali Lamba	Equity and access in voluntary assisted dying: Who are the patients, what are their experiences and who is missing?
Dr James Leigh	Implementation of artificial intelligence-enabled diabetic retinopathy screening in Australian primary care
Dr Tony Lian	DrumBeat.ai: Artificial intelligence to triage ear disease in Aboriginal and Torres Strait Islander people
Dr Emilia Nan Tie	Haemodynamic and metabolic determinants of heart failure with preserved ejection fraction in obesity
Dr Beryl Lin	Improving cardiorenal outcomes in type 2 diabetes
Dr Renee Lim	PMC E-Module project – complex communication education online

\$25,000 Grant recipients

Applicants	Key focus
Associate Professor Alireza Ahmadvand	ACE-AI: Accuracy, comprehensiveness and efficiency of AI medical scribes in mental health consultations
Dr Damien Wu	Surgical management of infective endocarditis in children
Dr Kathryn Irving	Co-designing future care planning for young people with disability transitioning from paediatric to adult care
Dr Alexander Maloof	Multifocal lenses in diseased eyes
Dr Jun Hee Hong	REVEAL – SCLC: Revolutionising early detection and assessment through liquid biopsy in small cell lung cancer

\$5,000 Microgrant recipients

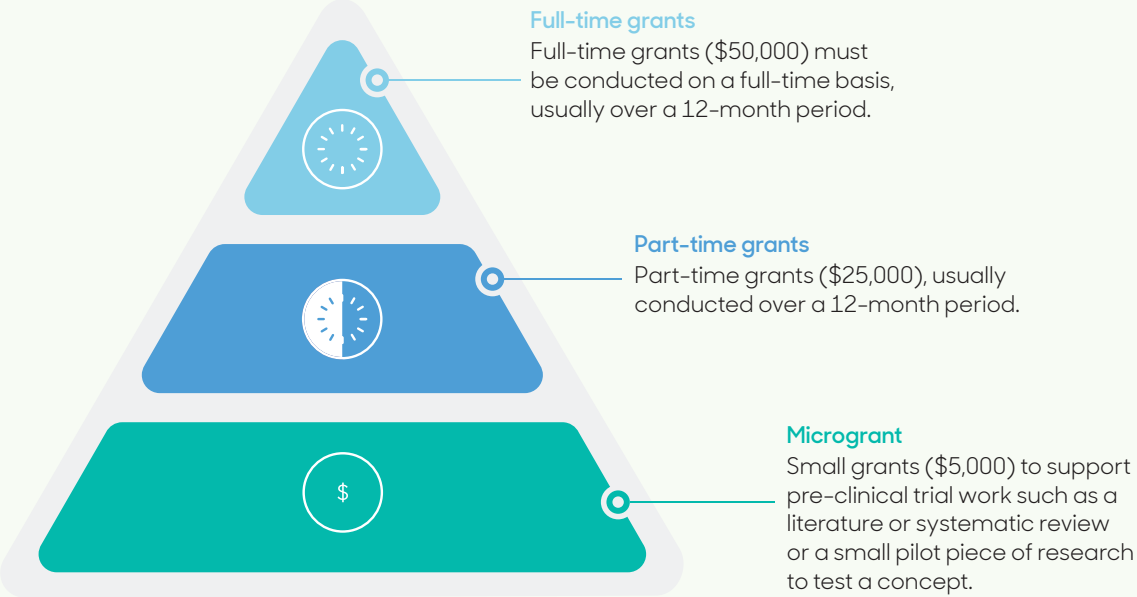
Applicants	Key focus
Dr Ali Abid	Experiences of an Australian tertiary referral centre with rituximab for the management of pemphigus vulgaris and pemphigus foliaceus
Dr Shabana Ahamed	Evaluating the impact of noise-cancelling headphones on sleep quality and patient satisfaction in older adults in the emergency department
Dr Terence Ang	Orbital neuroradiology of giant cell arteritis: A comprehensive analysis
Dr Benjamin Cailes	Harnessing the power of big data to better understand heart disease in patients undergoing liver transplantation
Dr Ernest Cheng	Building the future of surgical scholars: Establishing a dedicated program to promote surgical research and education in Southwest Sydney
Dr Molly Cookson	Career development – advanced procedural training program via RANZCOG
Dr Yannick De Silva	Time to analgesia in the ED: A retrospective audit of pain assessment and management practices at Bankstown-Lidcombe Hospital
Dr Ava Del Tufo	The multifaceted impact of living in a rural community on transgender and gender diverse individuals' health and wellbeing
Dr Vinay Goel	Association of breast arterial calcification with cardiovascular risk
Dr Akash Konantambigi	Evaluating patterns of testosterone prescribing practices in regional Australia: A retrospective observational study
Dr Clare Maher	Retrospective Analysis of Penetrating Eye Injuries at a Tertiary Referral Trauma Centre in Regional NSW
Dr Yizhou Ruan	Penile cancer: Improving outcomes guidance in cancer survivorship
Dr Devika Thomas	Identification of macrotroponin I in patients referred to a private pathology practice
Dr Adam Walsh	A-a gradient in mechanical thrombectomy for pulmonary embolus
Dr Kathryn Woodward	Health and wellbeing across settlement geographies: A longitudinal analysis of refugee health trajectories in rural and urban Australia
Dr Veronica Yeung	Application of proteomics in paediatric oncology

Member Grants impact summary

Member Grants
program



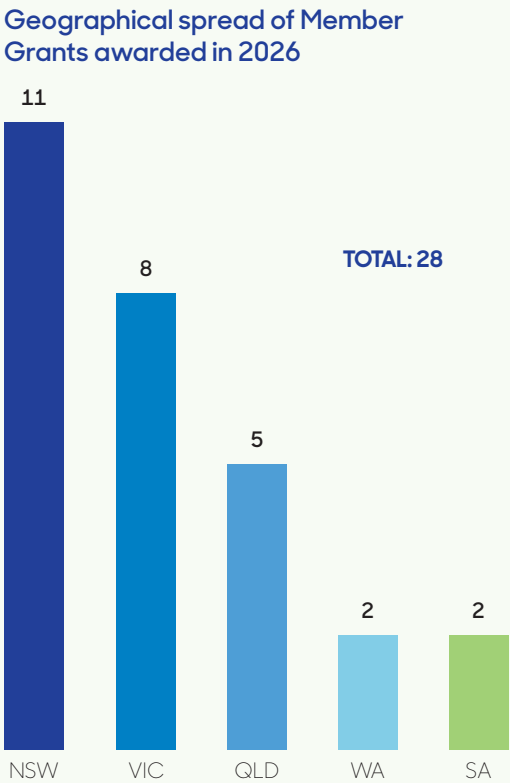
Structure of the Member Grants
Research Program in 2026



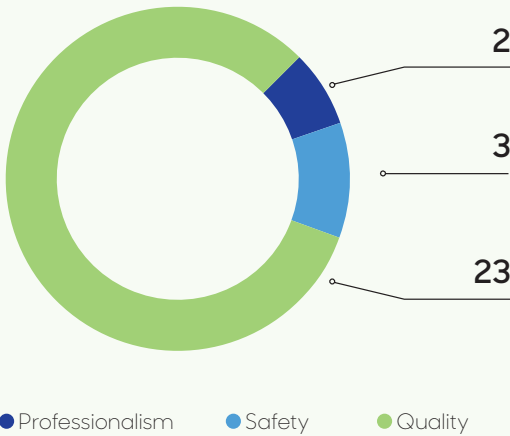
Member Grants by recent years



Member Grants by state



Member Grants - Impact categories



AI scribes in mental health care: evaluating accuracy, comprehensiveness, and efficiency in clinical documentation

Artificial intelligence (AI) is rapidly reshaping Australian healthcare, particularly through the emergence of AI medical scribes that automatically generate clinical notes from consultations. These tools are being adopted with the promise of reducing administrative burden and giving clinicians more time with patients. Leading research in this area is being conducted by Associate Professor Alireza Ahmadvand, an academic general practitioner affiliated with Griffith University and winner of this year's Miss Elizabeth Lewis Award for most outstanding program across the Member Grants cohort.

Associate Professor Ahmadvand's research focuses on whether AI scribes can safely and accurately support clinicians during complex mental health consultations. His project, ACE-AI (Accuracy, Comprehensiveness and Efficiency of AI Scribes in Mental Health Consultations), was developed in response to the rapid uptake of these tools following the widespread introduction of generative AI systems such as ChatGPT.

"I saw a significant increase in uptake by my colleagues," Associate Professor Ahmadvand says. "Most feedback was positive, but there were always concerns around errors or irregularities in summarising consultations. That raised the question of whether this technology is truly fit for purpose."

Mental health care presents a particularly demanding test for AI systems. Consultations are often longer, less structured, and emotionally complex, with patients communicating through layered narratives that can be difficult to summarise accurately.

"One in three consultations can involve a mental health component," Associate Professor Ahmadvand explains. "These are usually longer consultations with a lot of nuance and specific terminology. We wanted to know whether AI scribes can capture that variety."

To examine this, the ACE-AI study evaluates four widely used AI scribe platforms using six simulated psychiatric consultation scenarios. These cover common and high-impact presentations including anxiety, depression, psychosis, mania, self-harm, and somatisation.

Rather than using real patient data, the research team adopted a controlled approach using simulated consultations developed by the University of Nottingham. This allows for consistent comparison across systems while maintaining privacy and ethical safeguards.

"We wanted to look at the big picture," Associate Professor Ahmadvand says. "How accurate are these systems? How comprehensive are they? And are they efficient enough to help clinicians?"

Each consultation is processed through multiple AI platforms, with outputs assessed for accuracy, comprehensiveness, and efficiency. Clinicians and mental health specialists independently review the generated notes to evaluate how well key clinical information is captured, and how quickly usable documentation can be produced.

A key finding in the design of the study is that AI scribes do not simply replace documentation work – they transform it.

"We are changing the role of the clinician from a writer to an editor," Associate Professor Ahmadvand says. "Even if it only takes seconds for the platform to create a note, it still requires revision and approval before being added to a patient file."

This shift raises important questions about efficiency gains in practice. While AI tools may generate notes quickly, clinicians still need to verify accuracy, correct errors, and ensure clinical meaning is preserved.

The project is being conducted at a time when demand for mental health services in Australia continues to rise, placing pressure on clinicians already managing high workloads.

Early anecdotal reports suggest AI scribes may improve efficiency by reducing documentation time, but Associate Professor Ahmadvand emphasises that safety and accuracy must remain central.

"Mental health consultations are becoming more and more common," he says. "Whatever technology can offer, in an accurate, safe and comprehensive way, helps us clinicians provide better and more efficient care to people who come to us."

Research Associate Dr Mahan Mohammadi, who has worked alongside Associate Professor Ahmadvand since 2021, says the project addresses a critical gap in how emerging health technologies are evaluated.

"Considering the increasing mental health crisis, having technology that can help clinicians is extremely important," Dr Mohammadi says. "But it is equally important to evaluate whether these technologies are accurate, efficient and safe."

Dr Mohammadi adds that working closely on technology evaluation research has helped shape her understanding of how digital tools are changing healthcare delivery. She described the project as a crucial step in ensuring that innovation is matched with evidence.

The ACE-AI project is currently in the data analysis phase. Findings are expected to provide guidance for clinicians, health services, and developers on how AI scribes perform in mental health settings, and what standards should be considered when adopting these tools in practice.

Looking ahead, Associate Professor Ahmadvand says the goal is not to slow innovation, but to ensure it is responsibly integrated into clinical care.

"The goal is not just faster documentation," he says. "The goal is better and safer care."

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The goal is not just faster documentation.
The goal is better and safer care.

Associate Professor Alireza Ahmadvand



Visit avant.org.au/foundation
for application information.

Associate Professor Alireza
Ahmadvand, recipient of this year's
Miss Lewis Award

DrumBeat.ai: Transforming ear disease detection in Aboriginal and Torres Strait Islander children

As an intern in Darwin, Dr Al-Rahim Habib saw how increased connectivity and the introduction of telehealth programs were starting to change health outcomes in Aboriginal and Torres Strait Islander remote communities.

"I was always interested in data science," he says. "Then seeing how rewarding it was to get involved in kids' lives in these remote communities, and how much of a difference early intervention could make – that's what motivated me."

The clinical need was clear. Aboriginal and Torres Strait Islander children in rural and remote Australia experience some of the highest rates of otitis media in the world, yet access to specialist ear care is limited. And the chances of a missed diagnosis early are high. "If ear disease is not detected at a critical stage, poor hearing has downstream impacts on socialisation, behaviour and education," Dr Habib says.

He could see that frontline health workers had limited opportunity to gain experience interpreting otoscopic images at the point of care and that AI had the potential to help. The DrumBeat.ai project began in 2018 and quickly drew support from universities, tech companies, and funding bodies. In 2021, a key grant from Avant to support his PhD gave Dr Habib the means to investigate whether AI's potential was real.

"Funding from Avant was extremely important," Dr Habib says. "Their Member Grants support innovation that encourages early-career doctors to follow their curiosity. They offer a path forward to get an idea off the ground."

The development of DrumBeat.ai's first AI-based otoscopy algorithm designed to detect ear disease,

was the result. The system was trained on thousands of otoscopic images collected through telehealth screening programs involving Aboriginal and Torres Strait Islander children from across more than 100 communities over a ten-year period.

A second grant from Avant supported a comparative study, testing the algorithm directly against expert otolaryngologists. Initial results were promising, with the latest version demonstrating accuracy equal to, and even better than, an ENT specialist.

From theory to practice

By the time Dr Habib had completed his PhD, Dr Tony Lian had joined the DrumBeat.ai team as another PhD candidate. The project had a validated algorithm and published research behind it.

The next challenge was to get the tool adopted in community settings. Along with other research grants, a third grant from Avant is supporting Dr Lian through this clinical translation phase. Working with Aboriginal Community Controlled Health Organisations, the team will be evaluating how DrumBeat.ai integrates into remote primary care settings and existing clinical workflows. The first clinic took place in early May 2026 in partnership with the Earbus Foundation of WA and shaped how Dr Lian now thinks about the project.

"It's been critical to partner with communities who understand both cultural considerations and the lived experience of health workers, families and the kids themselves," he says.

"One of the exciting things during that first clinic was getting the patients' perspective. It was really fun to realise how interested and excited kids and their parents were

to see what their ears looked like. Being able to show images and have them analysed straight away has been really important."

Faster results also mean referrals for secondary review can be set up promptly and are more likely to be followed through.

Looking ahead

The ongoing real-world implementation phase will recruit hundreds of Aboriginal and Torres Strait Islander children across rural, remote, and urban clinics in Western Australia and Queensland.

For Dr Lian, Avant's support has shaped more than just the project.

"The grant has had a major impact not just on DrumBeat.ai, but on how my career has developed – learning research skills, developing partnerships and presenting at conferences. It's allowed me to build from a model to something being implemented in real life."

Dr Habib, who drove the developmental phase, and Associate Professor Narinder Singh, who supervised both PhD researchers, are watching Dr Lian's progress with interest.

"The DrumBeat.ai story has really evolved. It feels like we are at the start of a whole new chapter, with the tool moving into the field. Every year is more exciting as we see it being put to use and the partnerships grow."

The long-term ambition is to support national ear disease screening programs. And with international interest already following the project's results, the DrumBeat.ai team can see the model extending further still.

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It's allowed me to build from a model to something being implemented in real life.

Dr Tony Lian



Dr Tony Lian and Dr Al-Rahim Habib



Visit avant.org.au/foundation
for application information.

Finding the human factor: Dr Renee Lim on communication, courage, and changing healthcare

When Dr Renee Lim talks about communication, she does not mean polite bedside manners or neatly memorised scripts. She means the raw, human, high-stakes conversations that define medicine – breaking unwelcome news, navigating conflict and guiding families through the final hours of a loved one's life.

A locum doctor who has spent years working in palliative care and geriatrics across New South Wales, Dr Lim is also a performer, educator, and CEO of the educational technology social enterprise, Changineers. Her career spans hospital wards, university lecture theatres, film and television sets and rehearsal rooms. Together, these worlds shape her mission: helping clinicians communicate with clarity, courage and humanity. Moving constantly between hospitals and teams, she rarely stayed long enough to build deep professional relationships. Each placement meant new systems, new personalities, and unspoken expectations.

"People assume locum doctors are not very talented," she says candidly. "That you've chosen that pathway because you're incompetent or lazy."

For someone deeply committed to her patients, that perception was confronting, but clarified what she wanted to do. "What I realised very quickly was that communication skills were the only way I could do my job properly. All of this work is part of my goal to help people find value in themselves and therefore be comfortable with who they are."

Without long-term rapport, communication became her primary clinical tool, establishing trust with colleagues, reassuring patients, and demonstrating competence in high-pressure settings. It was not a 'soft skill.' It was essential.

Dr Lim's work in emergency departments, geriatrics, and palliative care – specialties that are multidisciplinary, emotionally charged and deeply relational – reinforced the lesson.

"If you fail at communication," she says, "then pretty much you fail your patient."

That reality intensified during COVID-19. Working in palliative care, Dr Lim navigated conversations between families and dying loved ones separated by infection-control policies.

"You're balancing the risk of bringing infection into the department with the reality that this might be their last chance," she explains. Patients and families, already distressed, became hypersensitive to barriers. Clinicians faced the moral strain of protecting public health while trying to preserve compassion and connection.

"When you take away people's rights and choices, being able to see family, access clinicians – those are core human rights," Dr Lim says. "Communication became even more important because everyone was being shut down in so many ways."

Dr Lim's parallel career as a performer proved unexpectedly powerful in responding to these challenges. With credits in Australian film, television, and theatre, she has long been immersed in character, improvisation, and human behaviour.

At the Pam McLean Centre, where she serves as Director of Program Development, she began integrating character narrative and improvisation methods into healthcare education. She credits Professor Stewart Dunn as a pivotal mentor, influencing her pedagogical mindset and encouraging her to interrogate not just what works in education, but why it works in a particular context.

What began as role-play facilitation evolved into a broader rethink of how communication is taught. Dr Lim became increasingly aware of the limits of checklist-based assessments in complex, personalised interactions.

"In healthcare, it's so important that we are clear, safe and consistent," she says. "However, communication between two people is always different."

Standardised scripts can create the illusion of competence while leaving clinicians anxious when conversations do not unfold as planned. Dr Lim began designing education that embraces variability rather than punishes it, drawing on behavioural psychology, improvisation, and personalised learning.

Supported by an Avant Member Grant, her latest initiative, the PMC E-Module Project, brings complex communication training into an interactive online format. The platform covers breaking bad news, managing conflict and end-of-life discussions through theory, video demonstrations, guided reflection, interactive exercises, and optional live facilitation.

The short-term goal is acceptability: will clinicians engage with it and find it relevant? The longer-term question is whether it changes behaviour and encourages deeper reflection.

Dr Lim is candid about the research challenges. Communication does not fit neatly into binary outcomes or traditional trial designs.

"You can't just believe in the idea of a solution," she says. "You have to understand not only how it works, but why you think it will work in this particular context. There is no one-size-fits-all in healthcare. If you want to do good research, it must be contextual, but it also must be robust."

Looking ahead, Dr Lim envisions scalable, equitable access to high-quality communication training and a cultural shift within medicine. She wants clinicians who are confident enough to reflect, adapt and learn without self-judgement.

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If you fail at communication, then pretty much you fail your patient.

Dr Renee Lim

Dr Renee Lim



Visit avant.org.au/foundation
for application information.

Member Grants judging panel

Large Member Grants



Professor Nadia Badawi AM, Neonatologist
 PhD, FRCPI, FRACP, DCH, MSc, MBBSCh



Associate Professor Nicole (Nikki) Bart, Cardiologist
 MBBS (Hons), DPhil, FRACP



Dr Belinda Jackson, Gastroenterologist
 MBBS (Hons), BBioMedSci (Hons), FRACP, PhD



Emeritus Professor Kim Oates AO, Paediatrician
 MD, DSc, MHP, FRACP, FRCP, FAFPHM



Dr Luke Duffy
 MD, FRACGP



Dr Victoria Phan, General Practitioner
 MBBS, MCLin US, DCH



Professor Wendy Brown, Bariatric Surgeon
 MBBS (Hons), PhD, FRACS, FACS



Professor Ian Incoll, Orthopaedic Surgeon
 MBBS, FRACS (Orth), FAOrthA



Professor Gulam Khandaker, Public Health Physician
 MBBS, DCH, MPH, PhD, FAFPHM

Microgrants



Dr Angelina Di Re, General and Colorectal Surgeon
 MBBS MS FRACS CSSANZ



Dr Dinesh Palipana, Emergency Medicine Registrar
 MBBS, LLB, MD, OAM



Dr Dhivya Thangavel, Obstetrician and Gynaecologist
 B. Med, M. Surg (Adv Gyn Surg), FRANZCOG, AATP



Dr Sally Parsons, General Practitioner and Medical Adviser (Avant)
 BMBS, DCH, FRACGP



Dr Danielle Oh, Haematologist
 MBChB, FRACP, FRCPA



Dr Manjinder Kaur Brom, Emergency Medicine Registrar
 MBBS

Research Grants: strengthening the evidence infrastructure



The Research Grants stream supports organisations undertaking larger, more advanced research projects that generate high-quality evidence to inform clinical practice and health service improvement.

These grants are designed to:

- build robust evidence to guide clinical and organisational decision making
- enable multi-site, multidisciplinary collaboration across institutions
- strengthen Australia’s clinician researcher pipeline
- accelerate the translation of findings into practice and policy.

By supporting rigorous, collaborative research, this stream helps ensure that improvements in care are driven by strong evidence and can be implemented consistently across diverse settings.

This year’s grant recipients demonstrate a national commitment to climate resilience, digital innovation, patient-centred care, workforce wellbeing and health system improvement. Together, these projects tackle emerging challenges while delivering practical solutions with the potential to influence policy and clinical practice.

Funded initiatives address priorities including suicide prevention among healthcare workers, climate-related risks to health service delivery, values-based end-of-life care, artificial intelligence in patient safety, and the safe integration of digital technologies into primary care. Through implementation-focused research and cross-sector collaboration, the Avant Foundation Research Grants program continues to support innovation that strengthens healthcare and improves outcomes for patients and clinicians.

Grant recipients

Zero Suicide Institute of Australasia Pty Ltd

Lead Researcher:
Professor Fiona Shand

Project:
Restorative, Just and Learning Culture: transforming health systems' quality and safety to support the prevention of suicide among healthcare professionals and those with whom they work

This project focuses on improving organisational responses to healthcare harm by embedding a Restorative, Just and Learning Culture (RJLC) within healthcare systems. Recognising the elevated suicide risk among healthcare professionals due to workplace stress, blame cultures, and adverse event responses, the study aims to enhance psychological safety and reduce burnout through culture change initiatives. The project includes leadership education, workshops, coaching programs, and a mixed-methods evaluation framework to assess organisational and workforce outcomes. The expected outcome is a validated, sustainable model for implementing RJLC across Australian healthcare settings.

Monash University – Health and Climate Initiative

Lead Researcher:
Dr Michael Loftus

Project:
Home sweet home? Identifying heat-related threats to Hospital in the Home services in a warming world

This study examines the growing risks posed by extreme heat to Hospital in the Home (HITH) services in the context of climate change. The research will investigate indoor heat exposure, medication stability, and patient willingness to engage with HITH services during heatwaves. Using temperature monitoring, patient surveys, and qualitative interviews, the project aims to identify vulnerabilities and inform evidence-based redesign of HITH models to support climate-resilient healthcare delivery.



Dr Michael Loftus, Primary Chief Investigator, and Dr Benjamin Rogers, Associate Investigator.

St Vincent's Hospital Melbourne – Palliative Nexus, Melbourne Medical School

Lead Researcher:
Dr Anna Collins

Project:
Defining value at the end of life: building the evidence for person-centred, quality, and sustainable care

This project seeks to establish an evidence-based framework for values-based end-of-life care informed by patients, carers, and the broader community. Through literature reviews, qualitative interviews, and preparation for a national preference survey, the research aims to identify the aspects of care most valued by stakeholders. The findings may help guide clinicians and policymakers toward more person-centred, sustainable, and equitable end-of-life care practices.

Macquarie University – Australian Institute of Health Innovation (AIHI)

Lead Researcher:
Professor Farah Magrabi

Project:
From incidents to insight: leveraging AI to Strengthen health system safety

This project explores the use of artificial intelligence (AI) and large language models (LLMs) to improve the analysis of patient safety incident reports. With more than 700,000 incidents reported annually in Australia, the study aims to develop and pilot an AI-powered tool capable of identifying and classifying emerging patient safety threats more efficiently than traditional manual review processes. By leveraging healthcare-trained LLMs, the project seeks to unlock valuable insights from free-text incident data, and support more timely interventions, to reduce patient harm.

Deakin University – Deakin Health Economics, Institute for Health Transformation

Lead Researcher:
Dr Feby Savira

Project:
Developing a safe and scalable model for prescription of digital health apps in primary care

This project addresses the absence of a national framework for prescribing digital health applications in Australia. Focusing initially on obesity management as a model for broader chronic disease applications, the study will review international regulatory frameworks and undertake a discrete choice experiment with Australian general practitioners. The project aims to identify the critical features required for safe adoption of digital health apps, including privacy safeguards, evidence standards, reimbursement mechanisms, and medico-legal protections. The outcomes may contribute to the development of a scalable and transferable framework for digital health integration in primary care.

Research Grants judging panel



Dr Lauren Feitelson,
General Practitioner Registrar
MBBS



Professor Ian Incoll,
Orthopaedic Surgeon
MBBS, FRACS (Orth), FAOrthA



Emeritus Professor Kim Oates AO,
Paediatrician
MD, DSc, MHP, FRACP, FRCP, FAFPHM



Professor Simon Willcock AM,
General Practitioner
MBBS (Hons), PhD, FRACGP, GAICD



Dr Reece Adler,
Emergency Medicine Registrar
BSc (Hons), MD

Transforming healthcare culture to protect those who care for us

In 2026, Avant Foundation committed funding to a groundbreaking national research initiative aimed at addressing one of the most urgent and complex challenges facing healthcare systems: the psychological wellbeing and suicide risk of healthcare professionals.

Led by the Zero Suicide Institute of Australasia in partnership with the Black Dog Institute, the project, *Restorative, Just and Learning Culture: transforming health systems' quality and safety to support the prevention of suicide among healthcare professionals and those with whom they work*, seeks to fundamentally reshape how healthcare organisations respond when adverse events occur.

Healthcare professionals experience significantly higher rates of burnout, psychological distress, and suicide compared with the broader population. Workplace cultures that default to blame and punitive responses following critical incidents can intensify these pressures, contributing to emotional exhaustion, fear, disengagement, and workforce attrition.

Professor Fiona Shand, lead researcher of the project says, "This project emerged from a growing recognition that improving patient outcomes starts with supporting the workforce. If we're wanting to improve outcomes for people who turn up at the emergency department in a suicidal crisis or turn up at a mental health service, then we need to be improving the way that staff can operate and the environment in which they operate as well."

At the centre of the initiative is the implementation of a Restorative, Just and Learning Culture, an evidence-informed approach that shifts organisational responses away from assigning blame and toward understanding harm, supporting those affected, and strengthening system learning.

Sue Murray, from the Zero Suicide Institute of Australasia, says healthcare systems have traditionally focused on fault rather than support following adverse events.

"We want organisations to think differently about what happens when something goes wrong. Rather than asking who did what wrong and what's going to happen to them, we want them to ask: What happened? Who has been hurt? What do they now need? Whose responsibility is it to meet those needs?"

The research will be piloted within a major Australian public health service and is designed for practical, real-world implementation. The program includes targeted e-learning modules, face-to-face workshops, and a 12-month leadership coaching program to support organisation-wide culture transformation.

A key part of the project is measuring whether culture change leads to meaningful improvements for both staff and patients. Using a mixed-methods evaluation, researchers will assess changes in psychological safety, staff wellbeing, leadership behaviours, workforce retention, patient engagement, and broader health system outcomes.

The project will also examine operational and economic impacts, including staff absenteeism, recruitment and retention challenges, and the overall sustainability of healthcare workplaces.

Expected outcomes include:

- improved psychological safety and staff wellbeing
- reduced burnout, turnover, and suicide risk factors
- stronger organisational learning and safer patient care
- improved engagement with patients, families, and carers after adverse events
- demonstrated economic value through reduced workforce and system pressures.

Importantly, the initiative is designed not only to explain why culture change matters, but also how it can be achieved in practice.

"One of the things we've found in our research is that policies and strategies often set good intentions, but people struggle with the how," Professor Shand says. "Part of this project is actually demonstrating the how as well."

The project builds on the broader implementation of the Zero Suicide Healthcare Framework, which is already being adopted across Queensland, New South Wales, Victoria, South Australia, and Northern Territory. Researchers believe this creates a strong foundation for future national scale-up.

For Sue Murray, receiving support from Avant Foundation was a significant milestone after years of work to secure funding for the pilot.

"I was over the moon," she says. "I really believe that if we can make these sorts of shifts in culture, we can make the workplace better. Making the workplace better means that the people who come to that workplace are going to have a better experience."

The project also reflects the growing recognition that healthcare worker wellbeing is inseparable from patient safety and quality care. Female doctors in particular face higher rates of suicide than the general population, while many clinicians continue to work in environments shaped by fear of punitive responses when adverse events occur.

By strengthening organisational culture and creating psychologically safer workplaces, the initiative aims to support more compassionate care, healthier teams, and stronger healthcare systems overall.

Ultimately, this initiative reflects a simple but powerful principle: improving patient care begins with caring for the people who deliver it.

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This project emerged from a growing recognition that improving patient outcomes starts with supporting the workforce.

Professor Fiona Shand



Visit avant.org.au/foundation for application information.

Professor Fiona Shand and Sue Murray

Transformation Grants: enabling system-wide redesign



Transformation Grants represent Avant Foundation's most strategic investment in long-term healthcare reform. Focused on scalable, system-level change, these grants support initiatives that redesign how healthcare is delivered, governed, and embedded across clinical, educational, and organisational settings. By moving beyond isolated innovation toward structural improvement, the program aims to strengthen safety, efficiency, and professional practice across the broader healthcare system.

These grants are designed to:

- support projects with national or profession-wide system impact
- enable redesign of clinical, educational, or organisational workflows
- strengthen governance, safety, and professional standards across healthcare systems
- support scalable innovations that can be embedded into routine practice.

Where Research Grants build the evidence base and Member Grants focus on point-of-care innovation, Transformation Grants are intended to operationalise change, embedding improvements into policy, systems, and institutional practice.

Transformation Grant judging panel



**Professor Nadia Badawi AM,
Neonatologist**
PhD, FRCPI, FRACP, DCH, MSc, MBBCh



**Emeritus Professor Kim Oates AO,
Paediatrician**
MD, DSc, MHP, FRACP, FRCP, FAFPHM



**Associate Professor Chris Milross,
Radiation Oncologist**
MB, BS, MD, FRANZCR, FRACMA, GAICD



**Dr Mark Woodrow,
Emergency Physician and Deputy
CMO (Avant)**
MBBS, MBA, GDAppLaw, GCArts,
GCEm(ACEM), MACLM, AFRACMA



**Professor Simon Willcock AM,
General Practitioner**
MBBS (Hons), PhD, FRACGP, GAICD



The Avant Foundation Transformation Grant is a rare, long-term investment in high-impact, clinician-led research – work that advances patient safety and strengthens the health systems around it. Its goal is to turn evidence into better everyday practice, with the potential to change how we care for patients.

Grounded in evidence, driven by purpose.

Associate Professor Matthew Doane,
Avant Foundation Committee member

Winner: Transformation Grant

Adelaide University

Detecting problems in surgical performance due to deficiencies in non-technical skills and implementing a coaching program for individual and team improvement

Lead Researcher:
Professor Guy Maddern and
Dr Jesse Ey

This project aims to transform surgical safety by identifying deficiencies in non-technical skills (NTS) that contribute to preventable patient harm and implementing an evidence-based coaching program to improve individual and team performance. Although advances in surgical techniques, technology and perioperative care have substantially reduced technical errors, deficiencies in NTS, including decision-making, communication, leadership, teamwork and situational awareness, remain a major contributor to adverse patient outcomes. Recent work by the investigative team has shown that non-technical errors contribute to approximately 64% of surgical mortality cases in Australia, highlighting a significant and largely unaddressed opportunity to improve patient safety.

Building on this foundation, the project addresses a critical gap in surgical quality improvement by embedding structured assessment of non-technical errors into routine clinical practice and linking these findings to targeted interventions. The study will use the Australian and New Zealand Audit of Surgical Mortality (ANZASM), together with prospective implementation across metropolitan and regional hospitals, to identify and characterise non-technical errors associated with surgical morbidity and mortality. The team's validated System for Identification and Categorisation of Non-Technical Errors in Surgical Settings (SICNESS) framework will be refined into the Non-Technical Error Assessment and Reporting System (NOTEARS), enabling structured identification of non-technical errors during routine morbidity and mortality meetings. This represents a significant advance over current approaches, which rely largely on unstructured discussion and do not

consistently identify the underlying behavioural and system factors contributing to patient harm.

Information generated through NOTEARS will directly inform a structured coaching program designed to improve decision-making, communication, leadership, teamwork and situational awareness at both individual and team levels. By integrating assessment with targeted coaching and ongoing evaluation, the project establishes a closed-loop quality improvement process that moves beyond identifying errors to implementing measurable solutions. Importantly, the intervention is designed to be practical, scalable and readily incorporated into existing clinical governance processes, allowing rapid translation into routine surgical practice without requiring substantial new infrastructure or resources.

This multidisciplinary collaboration brings together nationally recognised experts in surgical quality, clinical governance, human factors, implementation science, surgical education and health services research. The investigative team includes Professor Guy Maddern (Lead Researcher), Associate Professor Philip McCahy, Associate Professor Kerrin Fielding, Dr Markus Trochsler, Professor Wendy Babidge, Dr Jesse Ey and Miss Ellie Treloar. Collectively, the team has extensive experience leading national clinical audits, multicentre implementation studies, surgical education programs and health policy initiatives. Their complementary expertise ensures the project is well positioned to deliver high-quality research while facilitating rapid translation into clinical practice, professional education and national policy.

Professor Guy Maddern will lead the project. As RP Jepson Professor of Surgery at Adelaide University, Director of Research at the Basil Hetzel Institute for Translational Health and Chair of the ANZASM,

he has extensive experience leading national collaborative research programs that have directly influenced surgical quality improvement across Australia and New Zealand. He has authored more than 746 peer-reviewed publications, eight books and 31 book chapters, has an h-index of 77, and has supervised 44 higher degree research candidates to completion. His longstanding leadership of ANZASM and established collaborations with the Royal Australasian College of Surgeons, health services and policymakers provide a strong foundation for successful delivery of this project and widespread implementation of its findings.

The project builds directly on the team's recent high-impact research, including development and validation of the SICNESS framework, national studies demonstrating the burden of non-technical errors in surgical mortality, and evidence that structured coaching improves NTS in both metropolitan and rural settings. By combining these complementary research programs into a single implementation study, the project will provide the first evidence-based, standardised and scalable framework for detecting non-technical errors, implementing targeted coaching and evaluating their impact on patient outcomes. The anticipated outputs, including the NOTEARS framework, coaching curriculum and implementation resources, have the potential to be adopted nationally through the Royal Australasian College of Surgeons and integrated into routine clinical governance, continuing professional development and quality improvement programs. In doing so, the project aims to strengthen surgical performance, improve patient safety and reduce preventable harm across the Australian healthcare system.



Professor Guy Maddern



Dr Jesse Ey



Visit avant.org.au/foundation
for application information.

Runners-Up: Transformation Grant



Dr Stevan Nikolin

Black Dog Institute

Dynamic adjustment of brain network activity to treat depression

Lead Researcher: Dr Stevan Nikolin

The Black Dog Institute is advancing an innovative research program to develop a novel, non-invasive treatment for depression using closed-loop network modulation (CLNM), led by Dr Stevan Nikolin and a multidisciplinary research team.

As a runner-up of the Avant Foundation Transformation Grant, the project will receive funding to support a proof-of-concept efficacy study investigating CLNM as a potential new treatment approach for depression.

A new approach to treating depression

Depression is a leading cause of disability globally and places a substantial burden on individuals and healthcare systems. It is increasingly understood as a disorder involving dysfunction across large-scale networks of the brain.

One network of particular interest is the default mode network (DMN), which is involved in self-referential thinking, memory and internal thought. The DMN is consistently found to be overactive in people experiencing depression and is associated with rumination, brooding and negative patterns of thinking.

CLNM aims to address this dysfunction directly. Using electroencephalography (EEG), the system monitors brain activity in real time, detects elevated DMN activity and provides targeted feedback designed to disrupt maladaptive patterns and promote more adaptive brain functioning. Unlike traditional treatment approaches, CLNM is designed to respond to an individual's brain state and adjust the intervention accordingly.

The research

The project will involve a trial of adults experiencing mild to moderate depressive symptoms who will undertake a two-week course of CLNM.

Researchers will assess changes in DMN activity using EEG, alongside depressive symptoms, safety and participants' experiences of the treatment. The study will build on preliminary work demonstrating that CLNM can reduce DMN activity in real time.

A key component of the research is also exploring remote delivery using portable EEG devices. If successful, this could support a more scalable treatment that can be delivered beyond traditional clinical settings, potentially improving access for people living in rural or underserved communities.

Building towards future treatments

The runner-up funding will generate important preliminary clinical and neurophysiological data to guide further development of CLNM and support future applications for larger Phase 2 and Phase 3 randomised controlled trials.

The project represents a move towards more personalised approaches to depression treatment, combining brain monitoring, real-time feedback and targeted intervention. Rather than treating symptoms alone, CLNM aims to identify and modify dysfunctional neural activity as it occurs.

In the longer term, this research has the potential to contribute to a new generation of precision, non-invasive and technology-driven treatments for depression, complementing existing therapies and offering new possibilities for people who do not respond adequately to current treatment options.



Associate Professor Fiona Brownfoot

University of Melbourne

Transforming intrapartum care: real-time decision support to improve the quality and safety of labour

Lead Researcher: Associate Professor Fiona Brownfoot

Foetal asphyxia during labour remains a major cause of stillbirth, neonatal death, and lifelong disability. Although cardiotocography (CTG) is the global standard for foetal monitoring, outcomes have not improved proportionally due to subjective and inconsistent interpretation.

This research program, led by Associate Professor Fiona Brownfoot at the University of Melbourne, addresses this gap by transforming how CTG data are analysed and applied. It is built on one of the world's largest curated CTG datasets, linking raw foetal heart rate signals with detailed maternal and neonatal outcomes. Unlike traditional methods that rely on simplified traces, this approach uses minimally processed data to better capture the physiology of labour.

A key finding is that signal artefact – previously considered noise – has clinical value. Features such as foetal heart rate dropout and maternal-foetal signal coincidence predict perinatal asphyxia, challenging existing assumptions about CTG interpretation.

The team developed a hybrid human-AI model combining clinician-informed features with machine learning and deep learning. In multicentre retrospective studies, it improved detection of foetal asphyxia by 54% compared with clinicians, while maintaining equivalent specificity. The model is interpretable, supporting clinical decision-making.

This work is now being translated into real-time care through the REALM system (Real-time Ensemble Alerting and Learning Model), which updates risk predictions every 30 seconds during labour. By analysing labour as a dynamic process, it

provides clinicians with actionable lead time – often over 40 minutes – to respond to foetal compromise.

Designed with clinician and consumer input, the system aligns with real-world workflows and regulatory standards. Scalable and vendor-agnostic, it can integrate into existing systems across diverse healthcare settings.

Overall, this research shifts foetal monitoring from subjective interpretation to real-time, data-driven decision support, with the potential to improve safety, reduce harm, and enhance consistency in intrapartum care.

Avant member legacy series

A safer, fairer, smarter and more sustainable health system: the legacy of Emeritus Professor Christine Bennett AO

In the history of healthcare in Australia, few medical leaders have made as broad and meaningful, system-wide difference as Emeritus Professor Christine Bennett AO.

Professor Bennett describes her career as “unexpected,” spanning roles as a clinician, strategy and policy adviser, chief executive, and chair across the public, private and not-for-profit sectors. This breadth has given her a unique understanding of Australia’s health system and the ability to lead reform across organisational and sector boundaries.

Her journey began with a passion for child health, training as a paediatrician with a focus on population child health – an approach ahead of its time – emphasising big-picture policy and prevention. Recognising her leadership potential, her mentor, Professor John Beveridge, supported her appointment as Head of Child and Family Health in NSW. Within a year, she became Head of Services Planning and Policy Development, leading major reforms including maternity, neonatal and genetic services plans, the introduction of the Baby Health Record, State Trauma Plan, and the redistribution of resources to better match population need.

Alongside her clinical work in child and family health, child safety and child protection, she contributed to the Royal Australasian College of Physicians. During two terms on its Council, she chaired the Social Issues Committee and established the Medicine in the Media and Health Policy units, strengthening the profession’s voice on broader health and social issues.

Professor Bennett went on to hold several chief executive roles. At the Royal Hospital for Women, she led the ‘Save the Royal’ campaign, raised funds, and oversaw the development of a new hospital on the Prince of Wales campus. As CEO of Westmead Hospital and Health Services, she introduced

clinical streams co-led by medical and nursing leaders and leveraged opportunities for revenue generation – described by some as ‘cost shifting’.

Her time as a partner in Health and Life Sciences at KPMG, and later as Managing Director of a private health company, broadened her perspective on innovation, governance and the strengths of Australia’s mixed public-private system.

A passionate advocate for research, Professor Bennett became CEO, then Chair and now a patron of Research Australia, a social enterprise championing investment in health and medical research for over 25 years – an enduring legacy grounded in evidence, innovation and long-term thinking.

As Chief Medical Officer of MBF and later Bupa, she advanced a vision for health insurers as proactive partners in prevention, early intervention and values-based care, helping members better navigate the system.

In 2008, she was appointed Chair of the National Health and Hospitals Reform Commission. Its landmark report, *A Healthier Future for All Australians*, set out a long-term reform blueprint focused on connected care, equity, quality and performance. Many recommendations informed reforms across hospital funding, primary care, mental health, aged care, safety and quality, and digital health. Its consultative approach helped build a reform agenda that endures nearly two decades on.



As a leader, teacher and advocate, she reminds us that medicine is ultimately a human endeavour grounded in humility, critical thinking, moral courage, and respect for human dignity and social justice.

Reflecting on her career, Professor Bennett highlights four enduring insights:

- health requires a whole-of-government approach beyond healthcare alone
- waste is an ethical issue in a system of finite resources
- data and technology must be used more effectively
- future challenges demand open, agile and ethical leadership.

She regards her decade as Dean of Medicine at Notre Dame’s Sydney medical school as her most rewarding role, shaping doctors who are not only clinically excellent but compassionate, ethical and committed to lifelong learning. She emphasised selection beyond academic achievement to include leadership and service, fostering doctors who recognise that, “It’s the person who has the starring role in their healthcare.”

Appointed an Officer of the Order of Australia in 2014, she was described by then-Governor of NSW, Dame Marie Bashir, as: “The guardian of Australia’s health system.”

Professor Bennett’s impact is a testament to the difference a medical leader can make when guided by passion, purpose and practical action. As a leader, teacher and advocate, she reminds us that medicine is ultimately a human endeavour grounded in humility, critical thinking, moral courage, and respect for human dignity and social justice.

Emeritus Professor Christine Bennett AO



Visit avant.org.au/foundation for application information.

Chief Medical Officer's message

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The strength of this profession has never been about choosing between innovation and humanity – it is its ability to hold both at once.

Medicine is undoubtedly in a period of extraordinary transformation. Advances in artificial intelligence, genomics, digital health, precision therapies and data-driven decision-making are just some of the technologies reshaping how care is delivered. At the same time, health systems are under sustained pressure from rising demand, workforce shortages, increasing complexity and growing community expectations.

Amid this change, however, something important holds steady. At its core, medicine is a profession built on trust. Patients rely on doctors at the most vulnerable moments of their lives, expecting not only clinical expertise, but judgement, compassion, integrity and professionalism.

Across this Annual Review, the work supported by Avant Foundation reflects both of these realities. Dr Tony Lian and Dr Al-Rahim Habib's ongoing work on ear health for First Nations children at DrumBeat.ai is a good example: an exciting innovation, applied in service of an old and essential need – the quality of care a doctor can give to vulnerable patients in the community. That is what great innovation in medicine looks like. It doesn't replace clinical judgement; it enhances it.

As Chief Medical Officer, I am particularly encouraged by the continued focus on clinician-led research and professional development. Clinicians are uniquely placed to identify opportunities for improvement because they practice at the interface of systems and patients. Supporting their ideas ensures that innovation remains connected to real clinical need.

Looking to the year ahead, three initiatives stand out as ways Avant Foundation is contributing to improving the practise of grant making in health and medical research.

The health systems risk assessment research underway with Macquarie University will be a valuable influence on our grant making and impact strategy. I am looking forward to how it can raise the profile of health systems research and multidisciplinary collaboration in this underfunded space.

We have also consciously shifted to a researcher-led and co-designed approach for setting metrics and measuring research impact. You can read more about this on our website, but we believe it significantly enhances our efforts and leads best practice in a notoriously complex area.



Professor Steve Robson

Finally, we have initiated a small health and medical research funders' group, bringing together foundation managers from various organisations to discuss best practice and collaboration. I am encouraged by this emerging community of practice. Its early focus will be on the things that matter most to applicants: reducing the burden of effort involved in seeking support and improving how we assess the impact of what we fund.

The work featured in this review reflects a profession committed to progress, service and care. It demonstrates what is possible when clinicians, students, researchers and partners work together with a shared purpose to support the lives of patients and communities.

The opportunities ahead for medicine are significant. So too is the responsibility to ensure that progress remains grounded in evidence, professionalism and patient-centred care. The strength of this profession has never been about choosing between innovation and humanity – it is its ability to hold both at once. That balance will continue to define the best of medicine.

Professor Steve Robson
Chief Medical Officer, Avant
Obstetrician and Gynaecologist

Contact us

avant.org.au/foundation

