GEMPASS 2025 GRANTS SUMMARY

STREAM 1: SEED FUNDING GRANTS (5)

1) Simulation Based Teaching (SBT) and the use of Artificial Intelligence (AI) in Core Medical Education Skills

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Professor Veronica Preda	Macquarie University
2	A/Prof Janani Mahadeva	Macquarie University
3	Dr Christine Chiu	Macquarie University
4	A/Prof John Turchini	Macquarie University
5	Dr Erin Moth	Macquarie University
6	Ms Wanda McDermott	Macquarie University
7	Professor Michael Wilson	Macquarie University

AIM: To explore simulation-based training (SBT) modalities in medical student training and evaluate learning models where artificial intelligence (AI) can assist in teaching.

SIGNIFICANCE: Student experiences of medical education is evolving with technological advancements enhancing the capabilities and accessibility of SBT with AI enabling personalisation of learning adaptive training models. AI–driven simulations can provide real-time feedback, monitor learners' progress and adjust the scenarios based on performance, training as well as remediate and checking compliance. Integrating simulation with other training modalities, such as hand washing, theatre and surgical scrubbing is one such educational experience. Our unit has published on such models (1,2) and medical education applications. The global adoption of SBT and AI allows greater access across a variety of clinical sites.

EXPECTED OUTCOMES: This work will present empirical research findings that illustrate the potential effectiveness in SBT-AI assisted learning environments. Medical student feedback and assessment of the SBT-AI experiences as well as trainer feedback will be canvassed. It will add to the data available in application of SBT-AI driven work.

BENEFITS: Understanding SBT and the evolving AI application with user feedback (teacher-trainer-student) will allow us to create more modern learning environments where skills and staff are used to their best potentials, efficiently, safely and with engagement on adaptable platforms. Successful SBT-AI models can be used across other healthcare & GEMPASS medical schools.

2) Exploring Rural Practice Intentions Through Graduate Tracking: A Qualitative Perspective

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Dr. Will Harvey	The University of Melbourne
2	Dr. Lachlan Van Schaik	The University of Melbourne
3	Dr. Tamekha Develyn	The University of Melbourne
4	Ms. Zahra Ali	The University of Melbourne
5	Prof. Julian Wright	The University of Melbourne

Our project aims to build the rural medical workforce capacity by identifying pivotal experiences that enhance intention for rural practice, and professional identity as a rural clinician.

AIM: This project expands on existing graduate tracking by incorporating interviews with final-year medical students. The aims of this project include:
1. Explore how students perceive their evolving roles as future rural doctors.
2. Identify key factors influencing aspirations for a rural medical career.
3. Examine enablers and barriers in rural training and their impact on career decisions.

SIGNIFICANCE: Most studies on rural medical training rely on quantitative data; many gaps remain. This project takes a longitudinal, qualitative approach, capturing real-time insights at a critical career transition offering unique, action-oriented insights into how medical education can better support rural workforce retention. Better understanding will refine medical education pathways and strengthen rural health workforce development.

EXPECTED OUTCOMES:
This project will provide key insights into rural medical training, uncovering pivotal experiences that shape students' career intentions. Findings will guide improvements in medical student selection, training, and retention strategies.

BENEFITS:
Addressing challenges and opportunities in rural medical education, this project will contribute to a stronger, more sustainable, and well-distributed rural health workforce in Australia.

3) Are Rural Pathway Students Representative of Deakin's Rural Training Footprint?

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Ms Jessica Beattie	Deakin University
2	Associate Professor Lara Fuller	Deakin University
3	Dr Erik Martin	Deakin University
4	Dr Vivienne Ramsbottom	Deakin University
5	Associate Professor Laura Gray	Deakin University

AIM: To formally map the demographic profile and medical workforce needs of Deakin University's bespoke rural training footprint, creating a tool that can (i) be used to compare with the medical student cohort recruited into the Rural Training Stream (RTS), and (ii) provide a methodological framework for accurately illustrating bespoke geographic areas of interests, thereby enhancing understanding and informing program and policy decisions.

SIGNIFICANCE: It has been advocated that to achieve the most significant improvements in health outcomes, the medical workforce should reflect the diversity of the communities it serves. This means that medical school enrolments should broadly reflect the demographics of the populations that the school's medical graduates will ultimately care for.

EXPECTED OUTCOMES: A transferable methodology and the development of a bespoke demographic and medical workforce profile of our defined rural training footprint.

BENEFITS: The development of a methodology for describing the demographic profile of a specific area that may be transferable to other programs. The demographic profile of our bespoke rural training footprint will provide a robust tool for assessing whether our RTS cohort reflects these community demographics and enable the development of evidence-based program design elements particularly in terms of student recruitment.

4) The What, Who, How, and Why of Health Professions Education (HPE) PhDs

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Dr Louise Allen	The University of Melbourne and Monash University
2	Dr Emma Bartle	The University of Western Australia
3	Dr Kristie Matthews	Monash University
4	A/Prof Damian Castanelli	Monash University and The University of Melbourne
5	Prof Robyn Woodward-Kron	The University of Melbourne
6	Prof Debra Nestel	Monash University and The University of Melbourne

AIM: To investigate the impacts of HPE PhDs on graduates, the HPE workforce, and the discipline of HPE.

SIGNIFICANCE: This study addresses the critical gap in understanding the impact of HPE PhDs on graduates, the workforce, and the broader field. It builds on previous research highlighting potential gaps in research topics and funding inequities, raising concerns about workforce sustainability and diversity in addressing complex educational problems.

EXPECTED OUTCOMES: The research will provide insights into how HPE PhD-qualified individuals influence the workforce and discipline, identify gaps in research topics and approaches, and reveal potential inequities in access to PhD programs. These findings will inform recommendations for workforce sustainability, guide career planning, and support advocacy for PhD funding in HPE.

BENEFITS: Faculty CPD, scholarly teaching and research is a requirement of medical course AMC accreditation. The findings will benefit member schools by making visible the extent and impact of health professions educators undertaking further study. Additionally, they will provide insights for member schools and the broader HPE field about workforce development and research priorities. The findings will inform a larger project investigating the impact of HPE PhDs in more depth including an economic evaluation.

5) Pathways towards Medical Professionalism: Assessment Strategies from Selection to Graduation

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Assoc Prof Helen Wozniak	Australian National University
2	Assoc Prof Mike Tweed	University of Queensland
3	Dr Asela Olupeliyawa	University of Melbourne
4	Dr Melissa Oxley	Deakin University

AIM: The aim of this project is to review the strategies adopted at each of four medical programs that contribute to the assessment of professionalism from selection to graduation. This will be achieved by exploring for effectiveness and uncovering gaps and drawing on the literature.

SIGNIFICANCE: Professionalism and Leadership is a domain in the AMC Graduate Outcome Domain statements for medical programs, and MDANZ have highlighted the need to evaluate the effectiveness of longitudinally tracking medical students from selection to graduation. International consensus statements and reviews of existing practices have highlighted the need for continuing improvement, including consideration of the relationship between assessment, selection and professionalism.

EXPECTED OUTCOMES: Expected outcomes include to map the strategies and methods for assessing professionalism from selection to graduation within four medical programs, including innovative learning designs and assessment tools, and identify gaps in approaches. The dissemination and opportunities to build on this project are considered as benefits.

BENEFITS: The insights from this project will be shared across medical programs in Australia and New Zealand, and potentially other healthcare programs and internationally. This project will serve as a foundation to further develop strategies and opportunities for systems of assessment of professionalism from selection to graduation.

GEMPASS 2024 GRANTS SUMMARY

STREAM 1: SEED FUNDING GRANTS (5)

1) Not just how but why: a closer look at the purpose and value of the medical school admissions interview.

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Dr Lillian Smyth	Australian National University
2	A/Prof Alexandra Webb	Australian National University
3	A/Prof Krisztina Valter	Australian National University

The project explores the perceived value of- and selection criteria captured by- the inclusion of a live interview component in medical admissions interviews. This project addresses a gap in the literature, as most medical education literature on admissions interviews focuses on either the structure (e.g. MMI vs panel) or the impact of interview score on student outcomes (e.g. GPA, professionalism). There is little literature on why an interview is included and what the interview is selecting for that other selection tools cannot. In the context of the proliferation of asynchronous, automated and AI-based tools for approximating an interview, we need to revisit the evidence base for the value added by a live interview. The project is a pilot comprised of key informant interviews and document review from GEMPASS schools. Data collected will include perceptions, attitudes and practices around the value of an interview and the sorts of candidate attributes and abilities that can be assessed in this format. We are starting with a domestic-only sample for two reasons. First, it will offer value to GEMPASS, as a survey of current practice and perspectives. Second. This is an accessible pilot sample to determine if there is value in scaling up.

2) Lessons learned from successful multi-disciplinary teams in healthcare

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Prof Kylie MANSFIELD (Medicine)	University of Wollongong
2	A/Prof Lyndal PARKER-NEWLYN (Medicine)	University of Wollongong
3	Dr Lorraine FILDES (Nursing)	University of Wollongong
4	A/Prof Mim FOX (Social Work)	University of Wollongong

The WHO has identified an increased need for the health professionals to work in multi-disciplinary teams to mitigate the global health workforce crisis. In Australia, accreditation bodies of health professional education programs recognise this and have included requirements for interprofessional education (IPE) experiences in the delivery of education programs. This project aims to identify the characteristics of successful multi-disciplinary teams. Data will be collected using a mixed method approach; 1. interviewing members of clinical teams that are recognized for their effective collaboration (palliative care/ critical care) and 2. distributing a survey instrument, the Interprofessional Collaborative Scale, to healthcare workers from a variety of clinical settings to identify other effective multi-disciplinary teams, based on communication, feelings of isolation and accommodation. Interviews will be transcribed verbatim and

thematically analysed to identify the key themes and characteristics of effective multidisciplinary teams that are consistently present among these clinical teams. Interview transcripts will also be analysed using the practice architecture framework to identify how the multi-disciplinary team practice is impacted by the clinical environment. We will then map the identified characteristics to IPE activities to identify how these activities can be used to enhance these characteristics in students enrolled in professional health education degrees.

3) 3 WA Medical Schools Community Engagement in Selection

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Dr Vanessa Vaughan	University of Western Australia
2	Ms Bonnie Beasant	University of Western Australia
3	Prof Jane Courtney	Notre Dame
4	Dr Heidi Waldron	Curtin
5	Dr Helen Wilcox	University of Western Australia
6	Dr Scott McCoombe	University of Western Australia
7	Dr Bríd Phillips	University of Western Australia
9	Dr Rebecca Anglin	University of Western Australia

This project aims to evaluate current alignment of selection processes with community priorities in three WA medical schools. Despite a commitment to producing doctors that meet the healthcare needs of the communities they serve, Australian medical schools may not have sufficiently robust community engagement frameworks to meet the Australian Medical Council's new accreditation requirements. This is particularly the case for admission and selection criteria, where efforts to engage wider community have largely been informal with limited if any evaluation to date.
By inviting open and honest feedback from Western Australian community members, outputs from this project will inform a larger project aimed at increasing this alignment through community co-design. Findings from this project will be disseminated to GEMPASS member schools, allowing their adoption of community feedback relevant to their own programs and accreditation requirements.

4) Improving transparency in medical school admission and selection processes

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Assoc/Prof Matthew McGrail	The University of Queensland
2	Dr Jordan Fox	The University of Queensland
3	Dr Priya Martin	The University of Queensland
4	Prof Wendy Hu	Western Sydney University

The primary aim of this study is to understand the challenges of graduate entry Australian medical programs in making admissions information transparent and publicly available, relating to all entry pathways. The secondary aim is to identify and prioritise potential solutions to improve admissions transparency. Primary data will be collected from universities with graduate entry pathway(s) through interviews with admissions staff. It is intended this study will engage both with medical schools who currently are, and are not part of GEMPASS. It is expected that this study will set the groundwork for a

larger project which will nominally seek to publicly release admissions information for all medical schools via a central resource. Transparency in admissions processes is important for medical school applicants deciding where to apply, including where multiple pathways exist within the same university. This is especially critical for underrepresented groups including those of rural origin and lower socioeconomic status. In addition to the benefit to applicants, moving towards a structure where all medical schools have admissions information consistently and transparently available via a central resource is likely to allow medical schools to work together to ensure fair, and equitable admissions processes, particularly for underrepresented applicant groups.

5) Embedding Health & Society into the Medical Curriculum: MD2025

INVESTIGATORS		
	TITLE AND NAME	**ORGANISATION**
1	Assoc/ Prof Leigh Wilson	University of Wollongong
2	Dr Christine Metusela	University of Wollongong
3	Assoc/ Prof Lyndal Parker-Newlyn	University of Wollongong
4	Dr Colin Cortie	University of Wollongong
5	Professor Rowena Ivers	University of Wollongong
6	Professor Zsuzsoka Kecskes	University of Wollongong

AIM:
To develop, implement, and evaluate a novel approach to embed the Australian Medical Council (AMC) Graduate Outcomes for Domain 3 (Health and Society) as a vertically integrated component of the MD at the Rural Clinical School at the University of Wollongong in 2025.
SIGNIFICANCE:
This project is significant because it provides depth and cohesion to the Health and Society component of the medical curriculum in all phases of learning. By embedding health and society workshops that link to body systems, students will learn how to embed sustainability, systems thinking, Sustainable Development Goals, impacts of climate change, advocacy, culture and diversity, and population health, into best practice across all years of the curriculum.
EXPECTED OUTCOMES:
It is anticipated that using a workshop approach in conjunction with a flipped classroom model, students will be more engaged in the health and society curriculum which is often fragmented. By vertically integrating the Health and Society Theme across all years of learning, students will be better prepared for rural clinical practice when they graduate.
BENEFITS:
If successful, this model could be used by other GEMPASS medical schools to meet the AMC 2025 medical graduate outcomes for Health and Society.