POSITION DESCRIPTION



Centre for Digital Transformation of Health

Faculty of Medicine, Dentistry and Health Sciences

Research Fellow- Digital Health Technology Assessment

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| Position No | 0054723 |
| Classification | Academic Level B |
| Salary | $110,236 – $130,900 p.a. |
| Superannuation | Employer contribution of 17% |
| WORKING HOURS | Full-time |
| BASIS OF EMPLOYMENT | Fixed-term until 31/12/2024  |
| Other Benefits | <http://about.unimelb.edu.au/careers/working/benefits> |
| How to Apply | Online applications are preferred. Go to [http://about.unimelb.edu.au/careers](http://hr.unimelb.edu.au/careers), select the relevant option (‘Current Staff’ or ‘Prospective Staff’), then find the position by title or number. |
| contactFor enquiries only | Prof Wendy ChapmanEmail wendy.chapman@unimelb.edu.au Please do not send your application to this contact |

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

The Research Fellow will be a member of the Centre for Digital Transformation of Health’s (DT4H) team that is developing the Digital Health Validitron, a novel and innovative pipeline for co-design, development, testing and validation of digital health solutions. The Digital Health Validitron will support developers from the industry, research or healthcare sectors to iteratively design and refine their digital health solutions to ready them for trialling and implementation in healthcare settings.

The appointee will work with both the inter-disciplinary DT4H team led by Prof Wendy Chapman and the Melbourne Health Technology and Value Assessment Collaborative (M-VAC) co-led by Prof Adam Elshaug in the Melbourne School of Population and Global Health. They will be responsible for developing, implementing and evaluating a methodology for assessing digital health technologies, primarily clinical decision support tools and applications that support remote patient monitoring/virtual care, to understand the value proposition of a digital health solution being developed and validated through the Validitron. Experience in health technology assessment is essential. Technology assessment will include modelling the clinical and health system outcomes that are important to payers, patients and clinicians so that these factors are built into the design of the digital health application as early as possible. By understanding value drivers from the perspective of each group of stakeholders, developers will be able to plan a feasible business model and predict the potential return-on-investment (ROI) of further development of each application. Outcome measures will also inform the design of evaluation protocols for clinical effectiveness and trialling of implementation strategies to generate evidence that supports adoption and sustainability, and regulatory and reimbursement approval if required.

The ideal candidate will have

* demonstrated skills and experience in health technology assssement which includes analytical and modelling skills applied to health economics, health outcomes research, operations research, epidemiology and/or biostatistics
* a demonstrated understanding of the healthcare ecosystem and the role of digital health in improving patient experience and outcomes.

The successful candidate will be a self starter with the personal attributes and organisational skills to bridge the two academic, inter-disciplinary teams in DT4H and M-VAC.

The Centre for Digital Transformation of Health seeks to realise its vision of connected health through bringing together researchers, educators, healthcare and digital health professionals, patients and the public, to focus on translation of digital health applications into clinical practice and enable a future where the healthcare system is transformed through digital health innovation. It aims to significantly grow the field of digital health research at the University of Melbourne through creating the right environment for the type of inter-disciplinary, collaborative research that correlates with research excellence and impact to flourish.

# Key Responsibilities

## research and research training

* Working with team members with sociotechnical evaluation expertise, develop and validate an assessment framework and methodologies, using validated instruments, to assess the potential value of a digital health innovation and inform where and how it should enter the Validitron development and validation pipeline.
* Develop and validate new assessment instruments for digital health interventions where none are available.
* Carry out modelling of the potential clinical outcomes for the patient population of interest using retrospective clinical data in order to inform the value proposition for digital health intervention of interest from the point of view of patients, payers and clinicians.
* Guide trial design for digital health interventions including trial methods and study endpoints of importance to patients, clinicians and payers.
* Evaluate the effectiveness of early health technology assessment in improving the translation time and quality of digital health innovations.
* Contribute to the scholarship on health technology assessment of clinical decision support tools and applications that support remote patient monitoring/ virtual care.
* Work collaboratively with the team to prioritise digital health interventions to be developed through the Validitron pipeline based on health technology assessments together with sociotechnical, digital context, and operational/ implementation considerations
* Support good decision-making by the Steering Group that oversees the Validitron program of work by providing them with high quality information and data
* Collaboratively plan and drive research publications
* Present results at local, national and international forums
* Contribute significantly to applications for funding opportunities through grants, philanthropy or industry opportunities
* Develop and monitor timelines and milestones based on the goals and objectives of Digital Health Validitron design projects
* Maintain accurate and detailed records of all work

## SErvice and Leadership

* Attend and contribute to both Validitron and M-VAC team meetings, with responsibility for cross-fertilisation of methods, ideas and knowledge between teams
* Attend and actively participate in Centre seminars and staff meetings
* Contribute to expert groups as required to further the program of work
* Assist and support operational team members responsible for governance, budget oversight and financial reporting for the Validitron program of work
* Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 4.

# Selection Criteria

## Essential

* A PhD in a relevant analytical discipline such as epidemiology, health economics, biostatistics, mathematics, systems engineering, operations research or equivalent relevant experience
* Demonstrated skills in data science, modelling and simulation using real world health data
* Strong track record in health technology assessment (HTA) with knowledge of the Australian HTA landscape
* Demonstrated experience conducting economic evaluation and health technology assessment including for funding bodies such as MSAC and PBAC.
* Applied and/or research experience in analysing health outcomes and health economic impacts of health interventions to understand their value
* An excellent research track record including peer-reviewed publications and/or technical reports
* Experience working in the academic or healthcare sectors
* The ability to work with academic and clinical colleagues in an inter-disciplinary team environment
* Demonstrated excellent organisational skills including the ability to drive programs of work and build and maintain momentum with diverse stakeholders
* Demonstrated ability to manage complex research projects including development of effective plans, timelines and milestones
* Experience working with expert groups
* Demonstrated excellent verbal and written communication skills for effective research collaboration and engagement
* Demonstrated experience in using initiative, working with minimal supervision and ability to prioritise tasks to achieve objectives within timelines
* Strong skills and initiative in problem solving
* Demonstrated ability to work as a member of a research team and interact in a courteous and effective manner with academic, clinical and operational team members

## Desirable

* Experience in evaluation of digital health interventions
* Demonstrated understanding of the role of digital health in improving patient experience and outcomes in the Australian healthcare ecosystem

# Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University’s People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people’s age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous deserve to service for excellence and reach the targets of Growing Esteem.

# Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/topics/responsibilities/>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

# Other Information

## CENTRE FOR DIGITAL TRANSFORMATION OF HEALTH

The Centre for Digital Transformation of Health is a cross-disciplinary centre that sits in the Faculty of Medicine, Dentistry and Health Sciences, and the School of Computing and Information Systems.

With a vision of connected healthcare, the Centre aims to address a critical gap in the translation of digital health research, which is clearly needed if the healthcare system is to benefit from research-led advances in digital health. The Centre aims to significantly grow the field of digital health research at the University of Melbourne through creating the right environment for the type of inter-disciplinary, collaborative research that correlates with research excellence and real world impact on the healthcare system to flourish. Through bringing together researchers, educators, healthcare and digital health professionals, patients and the public, the focus on translation of digital health innovations into clinical practice will enable a future where the healthcare system is transformed through digital health innovation

The Centre’s strategy is underpinned by connecting the strengths in health and medical research in the Faculty of Medicine, Dentistry and Health Sciences, to the strengths in informatics, computing and data science in the School of Computing and Information Systems and across the University to create a collaborative, inter-disciplinary ecosystem that supports translation to real-world research impact in the healthcare system. Its three strategic pillars are focussed on better use of health data, integrating digital health innovations into the healthcare system and upskilling the healthcare workforce.

## CENTRE FOR HEALTH POLICY

 <https://mspgh.unimelb.edu.au/centres-institutes/centre-for-health-policy>

The Centre for Health Policy (CHP) strives to identify, critique, co-design, implement and evaluate policy options that protect the health of populations; to formulate, with partners, strategies that improve access, organisation, and delivery of health services or programs, particularly as they affect the most vulnerable; and to identify strategies for enhancing the safety, effectiveness and efficiency of health care systems in addressing the most pressing health and care challenges.

We offer a leading independent voice on health policy, generating new evidence and insights to inform debates and strengthen health care decision making. The Centre boasts a diverse, interdisciplinary group of scholars including health economists, evaluation and implementation scientists, clinicians, social scientists, legal scholars, policy analysts, sociologists, political scientists, demographers and executive managers. In 2021 the Centre comprised 60 academic and professional staff, as well as 35 honorary staff representing a diverse group of experts from industry, government and NGO sectors. Many staff members serve as advisors to federal, state, and international organisations. The Centre for Health Policy has six broad streams: [Cancer Health Services Research](https://mspgh.unimelb.edu.au/centres-institutes/centre-for-health-policy/research-group/cancer-health-unit); [Demography and Ageing](https://mspgh.unimelb.edu.au/research-groups/centre-for-health-policy/demography-and-ageing); [Evaluation and Implementation Science](https://mspgh.unimelb.edu.au/centres-institutes/centre-for-health-policy/research-group/evaluation-implementation-science); [Health Economics](http://mspgh.unimelb.edu.au/centres-institutes/centre-for-health-policy/research-group/health-economics); [Law and Public Health](https://mspgh.unimelb.edu.au/research-groups/centre-for-health-policy/law-and-public-health); Healthy Housing.

The Centre is also the coordinating home to M-VAC, the Melbourne Health Technology and Value Assessment Collaborative, established in 2021 and contracted to conduct value-based assessments and evaluations of pharmaceuticals, health services and technologies, preventive and curative programs, and digital health applications. M-VAC provides a comprehensive stream of research, consultancy and advisory services to underpin value-based health care agendas, and reforms.

The Centre for Health Policy runs a number of short courses in Health Program Evaluation and Health Economics. In addition it contribute to teaching within the Master of Public Health and from 2022 we will offer a Graduate Certificate in Health Economics.

## THE MELBOURNE SCHOOL OF POPULATION AND GLOBAL HEALTH

[www.mspgh.unimelb.edu.au](https://cis.unimelb.edu.au/#about)

The Melbourne School of Population and Global Health (MSPGH) is a respected leader in the field of public health education, research and knowledge exchange.

The MSPGH was established in 2001 as the first school of its kind in Australia with a vision to make a difference in the population and public health sphere - building on the substantial assets of our

University to advance public health in communities nationally and internationally - with a strong focus on Indigenous peoples. Since its inception, the School has grown rapidly in size, scope and reputation and has consistently attracted leading academics and researchers who bring considerable skills, insights and expertise. We continue to attract increasing levels of competitive funding

from governments and from a range of renowned philanthropic organisations and individuals.

The quality of MSPGH research is confirmed by the Academic Ranking of World Universities within which the University of Melbourne maintains its place as the top-ranked Australian university. The ARWU Global Ranking of Academic Subjects 2021 placed the University 16th in the world for Public Health and first in Australia. Our researchers regularly have work published in prestigious titles

including The Lancet, Nature, The New England Journal of Medicine and the Journal of the American Medical Association. The School is strongly engaged internationally with key collaborations including the World Health Organisation, Grand Challenges Canada, the Pasteur Institute and Department of

Health in Vietnam, the Public Health Foundation of India and the International Association for Suicide Prevention.

The flagship Master of Public Health degree, with over 650 enrolments, forms the core of a strong teaching program alongside undergraduate teaching and a suite of specialist postgraduate coursework degrees across Biostatistics, Epidemiology, Gerontology, Health Economics, Health Informatics and Sexual Health. These programs and the School’s extensive cohort of more than 120

graduate research students make a substantial contribution to training the next generations of public health specialists and researchers nationally and internationally.

The School comprises four Centres and two Institutes that focus on key areas of population and global health that are relevant now and will have tangible impacts on the health of national and international communities into the future. These comprise the:

* Centre for Epidemiology & Biostatistics;
* Centre for Health Equity;
* Centre for Health Policy;
* Centre for Mental Health;
* Melbourne Disability Institute; and
* Nossal Institute for Global Health.

## Faculty of Medicine, Dentistry and Health Sciences

[www.mdhs.unimelb.edu.au](http://www.mdhs.unimelb.edu.au)

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne’s largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty’s annual revenue is $628m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia’s first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty’s Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty’s RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

## The University of Melbourne

Established in 1853, the University of Melbourne is a leading international university with a tradition of excel­lence in teaching and research. The main campus in Parkville is recognised as the hub of Australia’s premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

## Growing Esteem, the Melbourne Curriculum and Research at melbourne: Ensuring excellence and impact to 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University’s global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University’s research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia’s ‘place’ in the Asia-Pacific region and the world, and on our ‘purpose’ or mission to improve all dimensions of the human condition through our research.

Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the ‘convergence revolution’ of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.

Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

## Governance

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>