

# Dementia Research in 2025



#### **Acknowledgement of Country**

Dementia Australia Research Foundation acknowledges Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters, and communities. We pay our respects to Elders past and present.

#### **Contents**

- 4 Shining a Light: Research, Awareness and Hope
- 5 Dementia Research in 2025
- 8 Post-doctoral Summaries
- Mid-Career Research Fellowship Summaries
- 14 Project Grant Summaries
- **21** Travel Grant Summaries
- 27 Clinical Practice Post-graduate Stipend Summaries
- **29** Research Translation Grant Summaries
- **30** Other Awards

### **Shining a Light:** Research, Awareness and Hope

Dementia is the second leading cause of death in Australia, yet it often remains in the shadows of public awareness.

With an estimated 433,300 Australians living with dementia, and 1.7 million providing care for loved ones, investment in research is essential to change the trajectory of this disease.

The insights gained through innovative research can reduce stigma, empower families, and pave the way for life-saving treatments, ensuring everyone is supported to live life well.

Through our annual Dementia Grants Program, we fund Australia's brightest emerging researchers to tackle critical challenges, including:

- + Uncovering the root causes of dementia
- Developing strategies to reduce risk and slow disease progression
- Improving early diagnosis and timely interventions
- + Enhancing treatment and care for those living with dementia
- + Pursuing innovative pathways toward a cure

By supporting studies at every stage of the dementia journey, Dementia Australia Research Foundation fosters innovative solutions and practical applications to address the growing challenges posed by dementia.

#### **TYPE OF RESEARCH FUNDED**



#### Your support makes a difference

By supporting cutting-edge projects, you are not only advancing science, but helping to change the narrative around dementia, fostering a more informed and compassionate society.

The Dementia Australia Research Foundation relies entirely on the generosity of individuals and organisations to make our work possible. Every contribution drives real impact—fostering hope for a future where dementia no longer casts its long shadow.

#### **Dementia Research in 2025**

#### **Post-doctoral Fellowships**

Lead Investigator	Project Title	Institution
Dr Simon Maksour	Targeting microglial as a novel treatment strategy for Alzheimer's disease	University of Wollongong
Dr Magdalena Przybyla	On-demand gene therapy for dementia	Macquarie University
Dr Marta Woolford	Meaningful and Purpose-Centered Care (MPCC) Program for people living with and without dementia in residential aged care. A quasi-experimental study evaluating the MPCC Program	Monash University
Dr Kristina Chelberg	Promoting voice of people living with dementia in aged care improvement and reform: developing innovative approaches through participatory action research	University of Technology Sydney

#### **Mid-Career Research Fellowships**

Lead Investigator	Project Title	Institution
Dr Annika van Hummel	Piecing together the role of TDP-43 in the Alzheimer's disease puzzle	Macquarie University
Dr Marianne Coleman	Designing a dementia-friendly eyecare pathway to help people with dementia "see well, live well" in residential aged care	Monash University

#### **Project Grants**

Lead Investigator	Project Title	Institution
Dr Shanley Longfield	Unravelling nanoscale dynamics and dysfunction of tau in frontotemporal dementia	The University of Queensland
Dr Esteban Cruz	Targeted autophagosomal degradation of tau to treat Alzheimer's disease	The University of Queensland
Dr Sayanthooran Saravanabavan	Determining the role of a novel genetic material in frontotemporal dementia	Macquarie University
Dr Brandon Munn	Mapping multiscale brain changes in dementia: Towards early detection and intervention	The University of Sydney
Dr Eddy Roccati	Co-designing an interactive online dashboard to communicate biological and digital markers of dementia risk	University of Tasmania
Dr Wei Qi Koh	Supporting the ethical use of innovative technologies in dementia care	The University of Queensland
Dr Matthew Lennon	Genetic and clinical mapping of future treatments for vascular cognitive impairment and dementia	UNSW Sydney

#### **Travel Grants**

Lead Investigator	Project Title	Institution
Dr Pratishtha Chatterjee	Advancing fluid biomarkers for dementia management	The University of Melbourne
Dr Gary Morris	Learning how to use brain banks to uncover new mechanisms linked to dementia	University of Tasmania
Dr Sharon Savage	Rare Dementia Support - Sharing knowledge to build resources for younger onset dementia	The University of Newcastle
Dr Kris Tulloch	A cross-cultural examination of dementia care in Australia and the Netherlands	University of the Sunshine Coast
Dr Hannah Fair	Personality, perceptions, and social propagation in dementia prevention: Concept validation, collaboration formation, and skill expansion	University of Tasmania
Dr Mohammad Shoaib Hamrah	Evaluation outcomes of the Hindi, Farsi, and Dari versions of the Preventing Dementia Massive Open Online Course among Indian, Iranian, and Afghan migrants	University of Tasmania

#### **Clinical Practice Post-graduate Stipends**

Lead Investigator	Project Title	Institution
Dr Antonia Clarke	Community, Country, and Cognition: Yarning to understand Place-based brain ageing for Aboriginal and Torres Strait Islander peoples	Monash University
Mr Nicholas Lawlis	The role of physical activity in preserving physical and cognitive health for people living with younger onset dementia	University of Canberra

#### **Research Translation Grants**

Lead Investigator	Project Title	Institution
Associate Professor Kerryn Pike	Providing access to cognitive interventions in regional memory clinics: Adaptation and implementation of a clinician training package	Griffith University

#### **Other Awards**

Lead Investigator	Project Title	Institution
Ms Shin Liau	Principles for optimising medicines management in older people living with frailty and dementia	Monash University
Dr Linda McAuliffe	Exploring connectedness in older people living with dementia in residential aged care: Experiences of ConnecTo	La Trobe University

## Post-doctoral **Fellowship Summaries**



DR SIMON MAKSOUR University of Wollongong

Professor Lezanne Ooi, University of Wollongong

#### **Associate Professor** Leszek Lisowski. Children's Medical

Research Institute

#### Professor Renzo Mancuso, University of Antwerp



#### Targeting microglial as a novel treatment strategy for Alzheimer's disease

#### **FOCUS**

This research aims to develop a groundbreaking gene therapy for Alzheimer's disease by restoring the function of microglia, the brain's immune cells.

Using advanced genetic techniques, the study will test whether delivering specific genes to microglia can return them to a healthy state.

The approach will be evaluated in lab models, including "mini-brains" and a humanised Alzheimer's disease mouse model, to determine its potential to protect against brain inflammation, loss of brain cells and cognitive decline.

#### **IMPACT**

Newly approved treatments are only mildly effective in slowing progression of symptoms and have significant side effects. Thus, there is an urgent need for new treatment approaches.

Microglial dysfunction is a key driver of Alzheimer's disease, contributing to toxic protein build-up and cell loss, and therefore restoring microglia function may be a promising treatment avenue.

This project tackles a critical gap by exploring a novel therapeutic approach in attempts to slow disease progression and protect brain cells from further degeneration. If successful, it may pave the way for innovative therapies not only for Alzheimer's disease but also for other neurodegenerative diseases.

**FUNDED BY** Race Against Dementia and Dementia Australia Research Foundation

#### POST-DOCTORAL FELLOWSHIP SUMMARIES



## **DR MAGDALENA PRZYBYLA**Macquarie University

**Dr Janet van Eersel,** Macquarie University

**Dr Daryl Ariawan,**Macquarie University

**Professor Lars Ittner,** Macquarie University



#### On-demand gene therapy for dementia

#### **FOCUS**

In dementia, brain cells can become "hyper-excitable," causing uncontrolled behaviour, miscommunication between neurons, and cell death.

By targeting a specific brain protein, p38y kinase, which can regulate these harmful processes, this project seeks to create precise, on-demand gene therapies. These therapies will only be active in hyperactive brain cells, reducing cognitive decline and cell death while enhancing therapeutic safety and precision.

#### **IMPACT**

Dementia, including Alzheimer's disease and frontotemporal dementia, is a growing global health crisis with no cure. Current treatments provide limited relief and lack the ability to modify the disease's progression.

Brain cell hyperactivity is an early and critical driver of dementia, making it a promising therapeutic target.

This research tackles major limitations of existing gene therapies, offering a safer, more effective approach to slow or prevent dementia progression, potentially transforming care for millions affected by these devastating diseases.

#### POST-DOCTORAL FELLOWSHIP SUMMARIES



DR MARTA
WOOLFORD
Monash University

Associate Professor Darshini Ayton, Monash University

**Professor Janet Anderson,**Monash University

Associate Professor Sze-Ee Soh, Monash University



Meaningful and Purpose-Centered Care (MPCC) Program for people living with and without dementia in residential aged care. A quasi-experimental study evaluating the MPCC Program

#### **FOCUS**

The Meaningful and Purpose-Centered Care (MPCC)
Program is designed to improve the quality of care and
life for residents in aged care homes, including those living
with dementia.

The program focuses on creating engaging environments, supporting independence, enhancing social interaction, and practical changes like better lighting, activity spaces, and sensory features.

Aged care staff who provide care to residents will receive training to integrate person-centered strength-based care into daily routines. This whole-of-home approach ensures everyone works together to improve the quality of life for residents, and quality of care.

#### **IMPACT**

Despite Government regulations promoting personcentered care in aged care, it is often overlooked, with residents spending much of their time alone.

The MPCC Program addresses this by equipping staff with the skills, tools, and environments needed to improve care quality. Evidence shows this approach can boost residents' quality of life and reduce issues such as falls. By involving the entire system, MPCC creates sustainable improvements that benefit both residents and staff.

#### POST-DOCTORAL FELLOWSHIP SUMMARIES



**DR KRISTINA CHELBERG**University of
Technology Sydney

**Professor Shih-Ning Then,** Queensland University of Technology

#### Associate Professor Linda Steele, University of Technology Sydney

## **Associate Professor Lyn Phillipson,**University of Wollongong

#### **Ms Kate Swaffer,** University of South Australia



# Promoting voice of people living with dementia in aged care improvement and reform: developing innovative approaches through participatory action research

#### **FOCUS**

This project seeks to develop innovative ways to include the voices of people living with dementia in shaping aged care services.

It will use methods like participatory action research and creative approaches in residential aged care facilities to improve how people with dementia can directly provide feedback about their care experiences.

An example of such methods includes talking mats, which are a visual communication tool that help individuals with dementia express their preferences and experiences effectively, enabling meaningful participation in aged care consultations.

The goal is to create evidence-based strategies and resources that empower individuals living with dementia to contribute meaningfully to reforms and policies in aged care.

#### **IMPACT**

Despite making up the majority of aged care residents, people living with dementia are often excluded from consultations about their care due to assumptions about their ability to participate. This exclusion undermines reforms and decision-making processes meant to improve aged care.

By promoting inclusive approaches, this research ensures that dementia care reflects the lived experiences and needs of all residents, fostering dignity, respect, and better quality of life in aged care systems.

# Mid-Career Research Fellowship Summaries



#### DR ANNIKA VAN HUMMEL Macquarie University

**Professor Lars Ittner,** Macquarie University

**Professor Yazi Ke,** Macquarie University



### Piecing together the role of TDP-43 in the Alzheimer's disease puzzle

#### **FOCUS**

This research explores how the protein TDP-43 interacts with two key Alzheimer's disease proteins; amyloid-beta (A $\beta$ ) and tau. The theory is that these interactions might worsen brain pathology and speed up cognitive decline in Alzheimer's disease.

The study will use advanced genetic tools and mice models to investigate these relationships, assess the impact on brain function, and explore whether targeting the protein TDP-43 could improve treatment outcomes.

#### **IMPACT**

TDP-43, found in the brains of many people with Alzheimer's disease, is linked to more severe symptoms and faster disease progression. By understanding its role alongside  $A\beta$  and tau, this research aims to uncover new therapeutic targets, paving the way for more effective treatments and personalised care for people living with Alzheimer's disease.

#### MID-CAREER RESEARCH FELLOWSHIP SUMMARIES



DR MARIANNE COLEMAN Monash University

#### Associate Professor Anita Goh,

The University of Melbourne

### **Professor Lisa Keay,** UNSW Sydney

### Professor Lynette Joubert,

The University of Melbourne



#### Designing a dementia-friendly eyecare pathway to help people with dementia "see well, live well" in residential aged care

#### **FOCUS**

By collaborating with eyecare professionals, aged care staff, people living with dementia, and their carers, the project will design a dementia friendly eyecare pathway that addresses barriers to regular eye exams, cataract surgery, and vision treatments.

The research will also develop training for optometry practice staff nationally, accessible by practitioners working in regional and rural areas.

Alongside these activities, new strategies and materials will be created to support adoption of the dementia friendly eyecare pathway by different communities.

#### **IMPACT**

Poor vision in people with dementia often goes unnoticed, leading to reduced quality of life, increased falls, and challenges in communication and participation in activities.

Despite the benefits of good eyecare, access to services remains fragmented in aged care settings.

This project addresses these gaps, aiming to improve visual health, independence, and wellbeing for thousands of Australians living with dementia, while providing a model for integrating specialised care into aged care systems.

## Project Grant Summaries



DR SHANLEY LONGFIELD The University of Queensland

# **Professor Frederic Meunier,**The University of Queensland

## Unravelling nanoscale dynamics and dysfunction of tau in frontotemporal dementia

#### **FOCUS**

Dr Longfield's project focuses on understanding how mutations in the tau protein, associated with frontotemporal dementia, affect its behaviour in brain cells.

Specifically, the study will investigate how a mutation in tau disrupts the organisation of nanoscale biomolecular condensates (BMCs) and synaptic vesicles. BMCs are tiny clusters of molecules that organise cellular processes, while synaptic vesicles are small bubbles in brain cells that release chemicals to transmit signals in the brain. Both are critical for effective brain communication.

Using advanced imaging techniques, the project aims to uncover how these changes contribute to loss of brain cell communication, and further, the complete loss of brain cells altogether.

#### **IMPACT**

Frontotemporal dementia is a devastating condition with no current cure, and the tau protein plays a central role in its progression. Mutations in tau protein disrupt the tau's normal functions, but the exact mechanisms remain unclear.

By exploring these nanoscale changes, this research could reveal key insights into how brain cell communication fails in frontotemporal dementia, paving the way for new therapeutic strategies to slow or prevent disease progression.

**FUNDED BY** Dementia Research Community - Bondi2Berry



**DR ESTEBAN CRUZ**The University of
Queensland

**Professor Jürgen Götz,** The University of Queensland

### Targeted autophagosomal degradation of tau to treat Alzheimer's disease

#### **FOCUS**

To tackle Alzheimer's disease, Dr Cruz is developing a groundbreaking therapy that boosts the body's natural processes to clear harmful tau protein clumps, which play a central role in the disease.

Using cutting-edge protein engineering, the project will create "targeted autophagy adaptors" that link tau aggregates to the cellular machinery responsible for breaking down unwanted proteins. Autophagy, the Greek meaning "self-eating", is the process where cells clean up and recycle their damaged parts to stay healthy. These adaptors will be tested in cell models to evaluate their ability to reduce tau pathology and protect brain cells.

#### **IMPACT**

Tau protein aggregation is a hallmark of Alzheimer's disease and other neurodegenerative diseases, yet it remains a challenging therapeutic target. By selectively clearing tau aggregates, this project offers a novel approach to slow or stop disease progression.

If successful, the method could be adapted to treat other diseases caused by protein aggregation, such as Parkinson's disease.

**FUNDED BY** Dementia Research Community - Bondi2Byron



DR SAYANTHOORAN SARAVANABAVAN Macquarie University

**Professor Julie Atkin,** Macquarie University



## Determining the role of a novel genetic material in frontotemporal dementia

#### **FOCUS**

This research explores how a recently recognised class of molecules that regulate gene and protein activity, called circular RNA (or circRNA), might contribute to the development of frontotemporal dementia.

CircRNAs have a unique looped structure that increases their stability, allowing them to build up in the body over time. The study will investigate how ageing and DNA damage affect circRNAs and their interactions with specific proteins, such as TDP-43 and FUS, which are known to be involved in frontotemporal dementia.

By understanding these processes, the project aims to determine whether circRNAs could serve as targets for treatment or as markers to diagnose frontotemporal dementia, potentially offering new ways to monitor and address the disease.

#### **IMPACT**

While it is known that proteins like TDP-43 and FUS play a key role in frontotemporal dementia, the underlying reasons for their malfunction remain unclear. Investigating the role of circRNAs in this process could lead to new approaches for detecting and managing frontotemporal dementia.

These insights have the potential to improve patient outcomes and contribute to the development of preventative treatments in the future.



**DR BRANDON MUNN**The University of Sydney

### Associate Professor James Shine,

The University of Sydney



## Mapping multiscale brain changes in dementia: Towards early detection and intervention

#### **FOCUS**

Dr Munn's research seeks to develop innovative tools to detect and understand brain dysfunction in dementia.

By focusing on the locus coeruleus, a critical brain region involved in memory and attention, the project combines advanced neuroimaging techniques with physics-inspired computational models.

The goal is to identify early biomarkers of cognitive decline and link these to the cellular mechanisms driving dementia. The research also aims to create open-source tools for broader use in understanding various brain disorders.

#### **IMPACT**

Early intervention through diagnosis is vital, but current methods often lack precision in identifying at-risk individuals or understanding the biological processes involved.

By bridging the gap between brain imaging and cellular science, this project could redefine early detection and treatment strategies, helping millions of people at risk of dementia and providing a foundation for future breakthroughs in brain health.



**DR EDDY ROCCATI**University of Tasmania

**Professor James Vickers,** University of Tasmania

**Professor Anna King,** University of Tasmania

Associate Professor Jane Alty,

University of Tasmania



## Co-designing an interactive online dashboard to communicate biological and digital markers of dementia risk

#### **FOCUS**

This project aims to create an interactive online dashboard, available on personal devices, that provides individuals with personalised information about their biological and lifestyle factors that affect dementia risk.

Co-designed with diverse stakeholders, the dashboard will deliver evidence-based recommendations tailored to the user's specific risk profile.

By offering actionable insights, the tool seeks to empower individuals to make healthier lifestyle choices, reduce dementia risk, and improve their quality of life.

#### **IMPACT**

Dementia, including Alzheimer's disease, is a significant health challenge, but up to 40% of cases may be preventable through lifestyle changes. Many Australians are unaware of their modifiable risk factors, and generalised health advice often fails to inspire action.

This project addresses the gap by presenting personalised, relatable, and scientifically grounded information to catalyse behaviour change. It leverages early detection and personalised feedback to enhance public engagement, enabling individuals to take proactive steps toward healthier ageing and dementia prevention.



**DR WEI QI KOH**The University of
Queensland

### Associate Professor Jacki Liddle,

The University of Queensland and Princess Alexandra Hospital

#### Dr Aisling Flynn,

Bournemouth University, UK



## Supporting the ethical use of innovative technologies in dementia care

#### **FOCUS**

Dr Koh will explore how innovative technologies, such as robotic pets and virtual reality, can be ethically integrated into dementia care in residential aged care facilities.

Gathering perspectives from people living with dementia, their caregivers, and residential aged care staff to understand the experiences of people living with dementia and their concerns, the study will build a consensus on best practices for ethical implementation of these technologies while addressing complex moral challenges.

#### **IMPACT**

Technologies like robotic pets and virtual reality have shown promise in enhancing the well-being of people with dementia by reducing agitation and improving social engagement. However, their use raises ethical questions, such as the potential for deception or emotional dependence.

This research aims to create practical, ethical guidelines to ensure these technologies benefit residents while respecting their dignity and autonomy, ultimately improving the quality of dementia care in residential aged care facilities.

**FUNDED BY** Hazel Hawke Alzheimer's Research and Care Fund



DR MATTHEW LENNON UNSW Sydney

**Professor Perminder Sachdev,**UNSW Sydney

**Dr Anbupalam Thalamuthu,**UNSW Sydney

**Dr Karen Mather,** UNSW Sydney

# Genetic and clinical mapping of future treatments for vascular cognitive impairment and dementia

#### **FOCUS**

Dr Lennon's research aims to map current and potential future treatments for vascular cognitive impairment and dementia (VCID), a leading cause of cognitive decline.

The project involves two key components:

- systematic review of clinical trials to evaluate existing and emerging therapies
- + genetic analysis to identify new drug targets using advanced genomic techniques.

Findings will be compiled into a publicly accessible database, offering a comprehensive resource for researchers and clinicians.

#### **IMPACT**

Despite being a major health burden, with cases expected to triple by 2050, VCID lacks specific treatments and research remains limited.

By identifying promising drugs and genetic targets, this project addresses a critical gap, paving the way for new treatments. The database and insights from this study could accelerate drug development and improve care for millions at risk of VCID globally.

**FUNDED BY** The Royce Simmons Foundation

# Travel Grant Summaries



DR PRATISHTHA
CHATTERJEE
The University of
Melbourne

#### Professor Charlotte Teunissen, Amsterdam University Medical Centres and Vrije Universiteit Amsterdam



## Advancing fluid biomarkers for dementia management

#### **FOCUS**

This project focuses on improving the diagnosis and management of two challenging dementia types:

Dementia with Lewy bodies (DLB) and Alzheimer's disease with atypical pathology.

By identifying specific blood biomarkers, the research aims to predict how rapidly DLB will progress and better understand Alzheimer's disease in cases where the biological indicators that reflect the core hallmarks of Alzheimer's disease are not present.

The project includes collaborating with global experts, analysing large datasets, and presenting findings at international conferences to refine methods and accelerate progress.

#### **IMPACT**

Current diagnostic methods for these dementias rely on costly or invasive tests and can often be inconclusive. By developing accessible blood tests, this research could enable earlier, more accurate diagnoses and tailored treatments.

This approach addresses critical gaps in dementia care, offering hope for improving quality of life for people living with dementia and advancing the field of dementia research globally. Insights could lead to transformative changes in how these diseases are detected and managed.



**DR GARY MORRIS**University of Tasmania

Associate Professor Brad Sutherland, University of Tasmania

**Professor Anna King,** University of Tasmania

**Professor Gabriele De Luca,**University of Oxford



## Learning how to use brain banks to uncover new mechanisms linked to dementia

#### **FOCUS**

Dr Morris' project focuses on using human brain tissue to uncover new mechanisms involved in Alzheimer's disease.

Dr Morris will travel to Oxford University to learn advanced tissue analysis techniques, such as multiplex immunohistochemistry, which allows the study of multiple markers in a single brain sample.

Immunohistochemistry is a method used to find and highlight specific proteins in a tissue sample by attaching special markers to them, making them visible under a microscope. The goal is to investigate how microglia (immune cells in the brain) interact with blood vessels, aiming to understand their role in maintaining brain health and contributing to Alzheimer's disease pathology.

#### **IMPACT**

Alzheimer's disease is a leading cause of dementia, but its underlying mechanisms remain poorly understood. Vascular dysfunction and the interactions between brain cells like microglia and blood vessels are increasingly recognised as key factors.

This project could identify new therapeutic targets and advance our understanding of Alzheimer's disease, helping pave the way for better treatments and preventive strategies for this devastating condition.



**DR SHARON SAVAGE**The University of
Newcastle

**Dr Aida Suarez-Gonzalez,** University College London

**Professor Eneida Mioshi,** University of East Anglia

#### Rare Dementia Support – Sharing knowledge to build resources for younger onset dementia

#### **FOCUS**

This project focuses on addressing the needs of people with younger onset dementia, a condition where dementia begins before age 65.

Dr Savage will visit leading UK institutions to gain expertise in the design and running of interventions specifically for people with younger onset dementia. She will focus in particular on approaches that support people with frontotemporal dementia or posterior cortical atrophy.

The visit will include collaborating with dementia experts, observing clinical practices, and co-developing a practical handbook that can guide clinicians on the specific "how to" details when setting up evidence-based programs to support patient wellbeing and function.

This project will also involve consultation with people living with younger onset dementia to ensure resources are meaningful and appropriately designed.

#### **IMPACT**

People with younger onset dementia often face unique challenges, together with delays in receiving a diagnosis, and gaps in specialised care. This all results in unmet needs. Tailored interventions can improve quality of life, but there is little guidance on how to implement them.

This proposal seeks to fill that gap by creating evidencebased resources and establishing international collaborations to enhance care and support for these individuals and their families.

**FUNDED BY** Lucas' Papaw Foundation



**DR KRIS TULLOCH**University of the
Sunshine Coast

#### **Dr Prudence Millear,** University of the Sunshine Coast.

Ms Mara Brouwers, Maastricht University

**Dr Bram de Boer,**Maastricht University



### A cross-cultural examination of dementia care in Australia and the Netherlands

#### **FOCUS**

Dr Tulloch's research focuses on improving dementia care by studying innovative care facilities in the Netherlands and comparing them to Australian models.

Dutch innovative care facilities are globally recognised for their person-centered care and connection to community, offering valuable insights for enhancing care in multicultural settings like Australia.

Dr Tulloch will collaborate with leading Dutch researchers, visit care facilities, and conduct a cross-cultural study to identify practices that could improve the quality of life for people living with dementia.

#### **IMPACT**

Dementia care in Australia is under scrutiny, with calls for innovative approaches to meet the needs of people living with dementia. Dutch care models excel in promoting autonomy and well-being, offering lessons for adaptation in Australia.

By learning from Dutch experts and incorporating these insights, Dr Tulloch aims to foster international collaborations, improve care practices, and advocate for strategies that could enrich lives and support caregivers in diverse communities.



**DR HANNAH FAIR**University of Tasmania

**Mr James Brady,** University of Tasmania

**Dr Kathleen Doherty,** University of Tasmania

**Professor James Vickers,** University of Tasmania



# Personality, perceptions, and social propagation in dementia prevention: Concept validation, collaboration formation, and skill expansion

#### **FOCUS**

Dr Fair's project explores how personality traits (such as introversion) and loneliness influence the link between social engagement and dementia risk.

Using data from a large Tasmanian cohort, entitled the ISLAND project, the research will investigate how individual personality traits change the impact of social engagement and loneliness on cognitive decline.

Dr Fair will travel to regional centres within Tasmania to collaborate with participants of the ISLAND study, as well as travel to Perth to attend the Australian Dementia Research Forum, where they will share findings and build collaborations with experts in dementia prevention.

Additionally, they will travel to Melbourne, to participate in a week-long workshop on social network analysis, enhancing their skills and supporting future research into how social behaviours spread within communities and impact health outcomes.

#### **IMPACT**

Social engagement is widely promoted to reduce dementia risk. However, the impact that factors like personality and perceived loneliness have on socialising to reduce dementia risk remains largely unknown.

By understanding these dynamics, the project can help create personalised strategies for dementia prevention. Additionally, exploring how health behaviours spread in social networks offers a unique opportunity to amplify positive changes by leveraging them for effective public health interventions to reduce dementia risk across communities.



DR MOHAMMAD SHOAIB HAMRAH University of Tasmania

**Professor James Vickers,** University of Tasmania

Associate Professor Jane Alty,

University of Tasmania

**Dr Kathleen Doherty,** University of Tasmania



Evaluation outcomes of the Hindi, Farsi, and Dari versions of the Preventing Dementia Massive Open Online Course among Indian, Iranian, and Afghan migrants

#### **FOCUS**

This project will focus on adapting the Preventing Dementia Massive Open Online Course, which is offered through the University of Tasmania for Indian, Iranian, and Afghan migrants in Australia.

By translating the course into Hindi, Farsi, and Dari and tailoring it to cultural contexts, the study aims to improve dementia health literacy.

Workshops and collaborations with experts and communities will refine the course to better meet the needs of these migrant groups, enabling them to manage modifiable dementia risk factors effectively.

#### **IMPACT**

Migrants from India, Iran, and Afghanistan often face barriers such as low health literacy, language challenges, and limited access to culturally relevant resources. These issues increase their risk of dementia-related health disparities.

This project addresses these gaps, helping to enhance health outcomes, reduce healthcare costs, and promote dementia prevention. The project targets migrants in Australia as a whole, not just Tasmania, but workshops and community consultations are planned for locations in Tasmania to refine the content and accessibility for these groups.

The course also has potential for global reach, as collaborators in India and Dubai are involved in the adaptation process to ensure cultural and linguistic relevance.

# Clinical Practice Post-graduate Stipend Summaries



**DR ANTONIA CLARKE**Monash University

**Professor Amy Brodtmann,**Monash University

Associate Professor Adrienne Withall, UNSW Sydney

**Dr Kylie Radford,** Neuroscience Research Australia



Community, Country, and Cognition: Yarning to understand Place-based brain ageing for Aboriginal and Torres Strait Islander peoples

#### **FOCUS**

This research explores how connection to Culture, Community, and Country influences healthy brain ageing for Aboriginal and Torres Strait Islander peoples, particularly in rural areas.

Through "yarning" (a traditional storytelling method), the project will engage community members and healthcare staff across New South Wales and Victoria to understand perspectives on dementia, brain health, and barriers to best practice dementia care.

Findings will inform culturally appropriate, Place-based strategies for dementia prevention and care.

#### **IMPACT**

Aboriginal and Torres Strait Islander peoples face higher rates of dementia at younger ages, with rural communities experiencing greater disparities in access to care.

By focusing on strengths within these communities and emphasising holistic, culturally informed approaches, the project aims to address brain health inequities and support long-term wellbeing.

Insights will help shape healthcare policies, educational resources, and locally tailored programs that empower communities to improve brain health across generations.

#### CLINICAL PRACTICE POST-GRADUATE STIPEND SUMMARIES



MR NICHOLAS LAWLIS
University of Canberra

**Associate Professor Joseph Northey,**University of Canberra

**Associate Professor Nathan D'Cunha,**University of Canberra

**Professor Ben Rattray,** University of Canberra



## The role of physical activity in preserving physical and cognitive health for people living with younger onset dementia

#### **FOCUS**

Mr Lawlis' research investigates the role of physical activity in preserving physical and cognitive health among individuals with younger onset dementia (diagnosed before age 65).

It explores barriers and enablers to exercise, compares physical activity levels and capacities across dementia types, and examines the potential benefit of physical activity interventions tailored for those with younger onset dementia.

The project combines qualitative and quantitative methodologies to inform tailored clinical guidelines and interventions.

#### **IMPACT**

This study addresses a critical gap in understanding physical activity's role for younger onset dementia, offering actionable insights to improve care.

By informing health practitioners, caregivers, and policymakers, the findings will enhance treatment strategies, promote independence, and improve quality of life for this population.

Additionally, the research will serve as a foundation for future studies, fostering better integration of physical activity into therapeutic frameworks for cognitive and physical health benefits.

# Research Translation Grant Summaries



ASSOCIATE PROFESSOR KERRYN PIKE Griffith University

**Professor Sharon Naismith,** The University of Sydney

**Dr Alex Bahar-Fuchs,**Deakin University

**Professor Alison Hutchinson,** Deakin University

**Professor Edward Strivens,** Cairns and Hinterland Hospital and Health Service

**Mr Joshua Nash,** Bendigo Health

**Dr Eleanor Hammersley,**Grampians Health

Associate Professor Sarah Russell, James Cook University

**Mr Aitan Schmideg,** Griffith University

**Ms Annika Stenstrom,** Griffith University Providing access to cognitive interventions in regional memory clinics: Adaptation and implementation of a clinician training package

#### **FOCUS**

Associate Professor Pike's research focuses on improving access to cognitive interventions for individuals at risk of developing dementia in regional Australia.

The team will adapt an existing clinician training package, initially developed for metropolitan memory clinics, to address the unique challenges faced in regional areas.

The program includes online modules, interactive workshops, and peer support, equipping clinicians with the tools to deliver evidence-based interventions such as memory training and goal-oriented strategies tailored to people with mild cognitive impairment or subjective cognitive decline.

#### **IMPACT**

Cognitive interventions can delay the onset and progression of dementia, but people in regional areas often lack access to such services.

Regional memory clinics face barriers like geographic isolation, limited resources, and diverse patient needs.

By bridging this gap, the project aims to enhance the quality of care, empower clinicians, and improve the cognitive health and wellbeing of underserved communities, ultimately reducing dementia risks and health disparities.

FUNDED BY Bartle Pathway to Care

# Other Awards

#### MS SHIN LIAU

Monash University

**Dr Emily Reeve,**Monash University

**Dr Jane Thompson** 

**Dr Mouna Sawan,**The University of Sydney



## Principles for optimising medicines management in older people living with frailty and dementia

#### **FOCUS**

This research project focuses on optimising medicines management for older adults with frailty and dementia.

This study will involve older adults (individuals aged 65 years or older) living with frailty and dementia, their carers, and families in structured discussions to refine and prioritise a set of principles previously developed by healthcare professionals without their input.

Participants will also have the opportunity to contribute additional principles. The goal is to ensure the principles better reflect the preferences and needs of consumers, enabling more personalised care.

#### **IMPACT**

Older adults with frailty and dementia often face challenges managing complex medicine regimens, increasing their risk of adverse effects and reducing quality of life.

Current medicines management guidelines may not fully reflect the needs and perspectives of those directly affected.

By incorporating consumer input, this project aims to promote a patient-centred approach to care, improve medicines safety, and inform the development of tools, education, and policies that support the wellbeing of older Australians.

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#### **OTHER AWARDS**



**DR LINDA MCAULIFFE**La Trobe University

**Professor Yvonne Wells,** La Trobe University

**Ilsa Hampton,** Australian Dental Association

## Exploring connectedness in older people living with dementia in residential aged care: Experiences of ConnecTo

#### **FOCUS**

Dr McAuliffe's research project explores the spiritual and psychosocial connectedness of older adults living with dementia in residential aged care using a tool called ConnecTo.

Through interviews, focus groups, and data analysis, this project seeks to understand how ConnecTo can assess spiritual and psychosocial connection needs and improve care.

The project will also evaluate whether people with dementia have unique needs compared to those without dementia, aiming to enhance the tool's usability for this group.

#### **IMPACT**

Dementia significantly affects quality of life, and spiritual and psychosocial well-being is a critical but often overlooked aspect of care. Current assessments lack standardisation and inclusivity for residents with dementia.

This project could lead to better understanding and meeting of spiritual and psychosocial connection needs, improving residents' well-being and potentially reducing behavioural symptoms.

The findings may inform future modifications of ConnecTo, advancing personalised and holistic care in aged care facilities.

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#### **CONTACT US**

Phone

1300 636 679

Find us online

dementia.org.au/research →

