

## 2024 Dementia Grants Program

### Research Translation Grant<sup>1</sup>

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>Dr Stuart and Bonnie Bartle Research Translation Grant in Dementia Care</b>		
Associate Professor Kerryn Pike	Providing access to cognitive interventions in regional memory clinics: Adaptation and implementation of a clinician training package	Griffith University

<sup>1</sup> Valued at \$200,000 over 2 to 3 years. Funding commences in 2025.

### Project Grants<sup>1</sup>

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>AAG Research Trust – Dementia Australia Research Foundation RM Gibson Grant</b>		
Ms Shin Liau <sup>2</sup>	Principles for optimising medicines management in older people living with frailty and dementia	Monash University
<b>AAG Research Trust – Dementia Australia Research Foundation Strategic Innovation Grant</b>		
Dr Linda McAuliffe <sup>3</sup>	Exploring connectedness in older people living with dementia in residential aged care: Experiences of ConnecTo	La Trobe University
<b>Dementia Research Community, Bondi2Berry Project Grant</b>		
Dr Shanley Longfield	Unravelling nanoscale dynamics and dysfunction of tau in frontotemporal dementia	The University of Queensland
<b>Dementia Research Community, Bondi2Byron Project Grant</b>		
Dr Esteban Cruz	Targeted autophagosomal degradation of Tau to treat Alzheimer's disease	The University of Queensland
<b>Dementia Australia Research Foundation Project Grant</b>		
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 Sayanthoran Saravanabavan	Determining the role of a novel RNA species in the pathogenesis of frontotemporal dementia	Macquarie University
<b>Hazel Hawke Research Grant in Dementia Care</b>		
Dr Wei Qi Koh	Supporting the ethical use of innovative technologies in dementia care	The University of Queensland
<b>The Royce Simmons Foundation Project Grant</b>		
Dr Matthew Lennon	Genetic and clinical mapping of future treatments for vascular cognitive impairment and dementia	University of New South Wales

<sup>1</sup> Unless otherwise indicated, valued up to \$85,000 over 2 years. Funding commences in 2025.

<sup>2</sup> Valued up to \$10,000 over 1.5 years. Funding commenced in 2024.

<sup>3</sup> Valued up to \$25,000 over 1.5 years. Funding commenced in 2024.

## Post-doctoral Fellowships

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>Race Against Dementia – Dementia Australia Research Foundation Post-doctoral Fellowship</b>		
Dr Simon Maksour <sup>1</sup>	Targeting microglia as a novel treatment strategy for Alzheimer's disease	University of Wollongong
<b>Dementia Australia Research Foundation Post-doctoral Fellowship</b>		
Dr Kristina Chelberg <sup>2</sup>	Promoting voice of people living with dementia in aged care improvement and reform: developing innovative approaches through participatory action research	University of Technology Sydney
Dr Magdalena Przybyla <sup>2</sup>	On-demand gene therapy for dementia	Macquarie University
Dr Marta Woolford <sup>2</sup>	'Meaningful and Purpose-Centred Care' (MPCC) Program for people living with and without dementia in residential aged care: A quasi-experimental study evaluating the MPCC Program	Monash University

<sup>1</sup> Valued up to \$715,000 over 5 years. Funding commences in 2025.

<sup>2</sup> Valued at \$439,000 over 3 years. Funding commences in 2025.

## Mid-Career Research Fellowships<sup>1</sup>

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>Henry Brodaty Mid-Career Research Fellowship &amp; Dementia Advocates Award</b>		
Dr Marianne Coleman	Designing a dementia-friendly eyecare pathway to help people with dementia "see well, to live well" in residential aged care	Monash University
<b>Dementia Australia Research Foundation Mid-Career Research Fellowship</b>		
Dr Annika van Hummel	Piecing together the role of TDP43 in the Alzheimer's disease puzzle	Macquarie University

<sup>1</sup> Valued at \$399,000 over 2 years. Funding commences in 2025.

## Clinical Practice Post-graduate Stipend<sup>1</sup>

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>Dr Maree Farrow Memorial Clinical Practice Post-graduate Stipend</b>		
Mr Nicholas Lawlis	The role of physical activity in preserving physical and cognitive health for people living with younger onset dementia	University of Canberra
<b>Dementia Australia Research Foundation Clinical Practice Post-graduate Stipend</b>		
Dr Antonia Clarke	Community, Country, and Cognition: Yarning to understand place-based brain ageing for Aboriginal and Torres Strait Islander peoples	Monash University

<sup>1</sup> Valued up to \$30,000 over 1 to 2 years. Funding commences in 2025.

## Travel Grants<sup>1</sup>

LEAD INVESTIGATOR	PROJECT TITLE	INSTITUTION
<b>Lucas' Papaw Foundation Travel Grant</b>		
Dr Sharon Savage	Rare Dementia Support - Sharing knowledge to build resources for younger onset dementia	The University of Newcastle
<b>Dementia Australia Research Foundation Travel Grant</b>		
Dr Pratishtha Chatterjee	Advancing fluid biomarkers for dementia management	The University of Melbourne
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
Dr Gary Morris	Learning how to use human brain banks to uncover new mechanisms linked to dementia	University of Tasmania
Dr Kris Tulloch	A cross-cultural examination of dementia care in Australia and the Netherlands	University of the Sunshine Coast

<sup>1</sup> Valued up to \$15,000 over 1 year. Funding commences in 2025.

# Research Translation Grant Summary

## DR STUART AND BONNIE BARTLE RESEARCH TRANSLATION GRANT IN DEMENTIA CARE

**Associate Professor Kerryn Pike, Griffith University**

*Providing access to cognitive interventions in regional memory clinics: Adaptation and implementation of a clinician training package*

This research aims to improve access to cognitive interventions for people at risk of developing dementia in regional areas of Australia, addressing significant disparities in service availability. By adapting an existing clinician training package for regional memory clinics, the study will equip neuropsychologists with the skills and resources needed to deliver evidence-based interventions, such as memory strategies and goal-oriented programs. The project will evaluate the impact of these interventions on people with mild cognitive impairment and subjective cognitive decline, focusing on improving their confidence, mood, cognitive abilities, and overall quality of life. The research also examines the barriers and enablers to implementing these services in regional areas, considering factors like large catchment areas, transportation challenges, and limited healthcare resources. The findings aim to support regional clinicians in overcoming these obstacles, ensuring more equitable dementia prevention services across Australia. Through collaboration with regional memory clinics and community stakeholders, this study has the potential to transform care delivery and close the evidence-to-practice gap in dementia prevention.

## Project Grant Summaries

### AAG RESEARCH TRUST – DEMENTIA AUSTRALIA RESEARCH FOUNDATION RM GIBSON GRANT

**Ms Shin Liao, Monash University**

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

This research focuses on optimising medicines management for older Australians living with frailty and dementia by incorporating the perspectives of individuals with living experience, their families, and carers. Although existing principles for medicines management have been developed by healthcare professionals, they lack consumer input. This project addresses the gap by engaging older adults and their carers in structured discussions to refine and prioritise these principles. Using a mixed-methods approach, the study will gather diverse perspectives to develop patient-centred care principles. The outcomes aim to enhance clinical practice, inform future education curricula, and influence healthcare policy to better support the unique needs of this vulnerable population. By prioritising consumer involvement, the project ensures that the principles for medicines management are both meaningful and practical, improving quality of life for those living with frailty and dementia.

## **AAG RESEARCH TRUST – DEMENTIA AUSTRALIA RESEARCH FOUNDATION STRATEGIC INNOVATION GRANT**

**Dr Linda McAuliffe, La Trobe University**

*Exploring connectedness in older people living with dementia in residential aged care: Experiences of ConneCTo*

This research aims to explore how spiritual and the psychosocial connectedness impacts the well-being of people with dementia living in residential aged care. By examining the use of ConneCTo, a tool designed to measure connectedness across five domains - self, others, something bigger, nature, and creativity - the project seeks to determine its effectiveness and identify adaptations needed for individuals with dementia. Using a combination of interviews/focus groups and quantitative data analysis, the study will gather information and perspectives from aged care staff, residents, and their families to assess regarding how the tool influences care practices and resident outcomes. The findings will inform potential modifications to the tool, improve understanding of the unique needs of residents with dementia, and support person-centred care approaches in aged care settings. This work has the potential to enhance quality of life, reduce behavioural challenges, and foster deeper connections for those living with dementia.

## **DEMENTIA RESEARCH COMMUNITY, BONDI2BERRY PROJECT GRANT**

**Dr Shanley Longfield, The University of Queensland**

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

This research focuses on understanding how changes in a brain protein called tau contribute to frontotemporal dementia, a condition that affects memory, behaviour, and thinking. Tau plays an important role in keeping brain cells healthy by helping organise small structures called synaptic vesicles, which are essential for sending messages between brain cells. In frontotemporal dementia, a specific change (mutation) in tau disrupts this process, leading to problems with how brain cells communicate. Using advanced tools to study live brain cells, this project will investigate how this mutation affects tau's behaviour and how it impacts brain function. The goal is to uncover what goes wrong in frontotemporal dementia at a molecular level and explore potential ways to protect brain cells from damage, offering hope for better treatments in the future.

## **DEMENTIA RESEARCH COMMUNITY, BONDI2BYRON PROJECT GRANT**

**Dr Esteban Cruz, The University of Queensland**

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

This research explores an innovative approach to treating Alzheimer's disease by leveraging the body's natural protein recycling system, known as the autophagy-lysosomal pathway, to clear toxic protein clumps called tau aggregates. These aggregates are closely linked to Alzheimer's disease progression and other neurodegenerative disorders. The study aims to design specialised proteins, called "targeted autophagy adaptors," which can selectively tag tau for removal, helping to reduce its harmful effects on brain cells. Using advanced cell and neuronal models, the project will test whether this method can effectively break down Tau aggregates and improve cell health. If successful, this approach could pave the way for a new class of therapies to address Alzheimer's and related diseases, offering hope for better treatments to slow or prevent cognitive decline.

## **DEMENTIA AUSTRALIA RESEARCH FOUNDATION PROJECT GRANT**

### **Dr Brandon Munn, The University of Sydney**

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

This research focuses on using advanced brain imaging and computational models to identify and understand early brain dysfunction in dementia, aiming to improve early detection and intervention strategies. It targets the locus coeruleus, a brain region crucial for arousal, attention and memory, which often shows signs of dysfunction before other symptoms of dementia appear. By combining innovative imaging techniques with physics-inspired computational methods, the study seeks to uncover unique brain activity patterns that signal cognitive decline. These findings will be linked to cellular processes, providing insights into how changes at the microscopic level impact overall brain function. The project also aims to develop open-source tools that researchers and clinicians can use to study a wide range of brain disorders. This work could lead to breakthroughs in early detection, allowing for timely and personalised treatment approaches that address dementia before significant cognitive decline occurs.

### **Dr Eddy Roccati, University of Tasmania**

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

This research focuses on co-designing an innovative online dashboard to help Australians reduce their dementia risk by providing personalised insights into biological and digital health markers. By presenting individual risk profiles alongside tailored, evidence-based recommendations, the project aims to empower users to adopt healthier lifestyles and prevent dementia. The dashboard will be developed with input from diverse stakeholders, including people living with dementia, caregivers, researchers, and healthcare professionals, ensuring accessibility and cultural relevance. Piloted through the longitudinal Island Study Linking Ageing and Neurodegenerative Disease (ISLAND) study, a large Tasmanian health initiative, the dashboard will test its ability to inspire positive behaviour changes in participants over six months. This approach highlights the importance of personalised health information in promoting preventive action and improving quality of life. If successful, the dashboard could serve as a model for similar interventions nationwide, advancing public health and dementia prevention efforts.

### **Dr Sayanthoran Saravanabavan, Macquarie University**

#### *Determining the role of a novel RNA species in the pathogenesis of frontotemporal dementia*

This research explores how a specific type of regulatory molecule, known as circular RNA (circRNA), contributes to the development of frontotemporal dementia, a condition that affects behaviour, decision-making, and communication. CircRNAs are highly stable molecules that build up in brain cells as people age, potentially interacting with proteins like TDP-43 and FUS, which are linked to brain cell damage in frontotemporal dementia and other dementias. The study aims to understand how these interactions lead to brain cell damage and whether circRNAs could serve as early biomarkers for diagnosing frontotemporal dementia or as targets for future treatments. Using advanced laboratory techniques, this project will analyse brain tissue from aging individuals and blood samples from people living with frontotemporal dementia to better understand the role of circRNAs in triggering the disease. If successful, this research could uncover new ways to detect

frontotemporal dementia early and develop therapies to slow its progression, offering hope for improved outcomes in dementia care.

## **HAZEL HAWKE RESEARCH GRANT IN DEMENTIA CARE**

**Dr Wei Qi Koh, The University of Queensland**

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

This research focuses on ensuring the ethical use of innovative technologies, like robotic pets and virtual reality, in dementia care within residential aged care facilities. These technologies aim to enhance the well-being of people living with dementia by reducing agitation, improving mood, and fostering social connections. However, their implementation raises ethical concerns, such as potential deception or impacts on dignity. This project will engage people living with dementia, their families, aged care staff, and ethicists to explore how these technologies are perceived and used. Through interviews, focus groups, and ethical case studies, the research seeks to understand user experiences and develop guidelines for ethical implementation. The findings aim to balance the benefits of technology with the complexities of care, providing practical recommendations for aged care facilities while respecting the dignity and preferences of residents. This work has the potential to inform policy, improve care practices, and support the responsible integration of technology in dementia care.

## **THE ROYCE SIMMONS FOUNDATION PROJECT GRANT**

**Dr Matthew Lennon, University of New South Wales**

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

This research aims to identify and evaluate potential treatments for vascular cognitive impairment and dementia, the second most common form of dementia worldwide. There are currently no specific medications available for this condition, leaving people living with dementia with limited options. To address this gap, the project will systematically review all existing clinical trials and treatment studies to assess their effectiveness, ranking therapies based on evidence and impact. Additionally, it will use advanced genetic techniques to discover new drug targets, identifying promising avenues for future treatment development. The findings will be compiled into a publicly available database, providing a vital resource for researchers, clinicians, and policymakers looking to advance dementia care. By bridging this critical gap in research, the study aims to pave the way for new, effective treatments that could improve cognitive health, slow disease progression, and enhance the quality of life for people living with dementia and their families.

## Post-doctoral Fellowship Summaries

### RACE AGAINST DEMENTIA – DEMENTIA AUSTRALIA RESEARCH FOUNDATION POST-DOCTORAL FELLOWSHIP

**Dr Simon Maksour, University of Wollongong**

*Targeting microglia as a novel treatment strategy for Alzheimer's disease*

This research is exploring a new way to treat Alzheimer's disease by focusing on microglia, which are the brain's natural "clean-up crew." These immune cells help clear out harmful proteins and keep the brain healthy, but when they don't work properly, they can contribute to the progression of Alzheimer's disease. This project aims to use a special delivery system, called AAV vectors, to send specific instructions to microglia, helping them return to a healthy state. This approach will be tested using advanced lab methods, including brain cell models and mice with human-like symptoms of Alzheimer's disease. If successful, it could lead to a completely new treatment for Alzheimer's disease, improving brain health and slowing disease progression. This innovative research could not only benefit people living with Alzheimer's disease but also open doors for treating other neurodegenerative conditions. With a team of experts and cutting-edge tools, the project is working towards giving people living with dementia and families new hope for the future.

### DEMENTIA AUSTRALIA RESEARCH FOUNDATION POST-DOCTORAL FELLOWSHIP

**Dr Kristina Chelberg, University of Technology Sydney**

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

This research focuses on empowering people living with dementia by creating innovative approaches to directly participate in aged care policies and services. Despite representing a significant portion of aged care residents, individuals living with dementia are often excluded from feedback and consultation processes due to communication and cognitive challenges to completing language-based surveys and interviews. The project will use participatory action research within residential aged care facilities to explore methods like visual tools, sensory approaches, and alternative communication systems to make participation more accessible. It aims to identify barriers, test new approaches, and develop evidence-based resources to promote inclusion of people living with dementia. By amplifying the voices of those living with dementia, the research seeks to improve the representativeness of aged care reforms and ensure policies reflect the lived experiences of all residents. This work not only addresses systemic exclusion but also upholds the disability rights principle of "nothing about us, without us," advocating for dignity, inclusion, and meaningful change in aged care systems.



## **Dr Magdalena Przybyla, Macquarie University**

### *On-demand gene therapy for dementia*

This research focuses on developing a groundbreaking gene therapy for dementia, specifically targeting Alzheimer's disease and frontotemporal dementia. These conditions often involve "excitotoxicity," where overactive neurons cause cell death and cognitive decline. The project aims to create a precise, on-demand gene therapy that can selectively regulate the activity of p38 $\gamma$ , a protein shown to protect neurons from this damage. Using advanced gene therapy techniques, the therapy will be designed to activate only in overactive neurons, reducing the risk of side effects on healthy cells. The approach will be tested in lab-grown neurons, human stem cell models, and mouse models of dementia to evaluate its effectiveness and safety. If successful, this innovative therapy could pave the way for more precise, personalised treatments for dementia and other neurological disorders involving overactive neurons, such as epilepsy and motor neuron disease. By addressing the limitations of current gene therapies, this research has the potential to revolutionise how we treat complex brain diseases and improve patient outcomes.

## **Dr Marta Woolford, Monash University**

### *'Meaningful and Purpose-Centred Care' (MPCC) Program for people living with and without dementia in residential aged care: A quasi-experimental study evaluating the MPCC Program*

This research focuses on evaluating the Meaningful and Purpose-Centred Care Program, designed to improve the quality of life for residents in aged care, including those living with dementia. The Program uses a whole-of-home approach, combining staff training, environmental modifications, and engagement strategies to create a more person-centred care model. By involving all staff roles and enhancing living spaces, the program fosters meaningful connections and promotes dignity, choice, and independence among residents. The project will measure outcomes like residents' quality of life, falls, use of restraints, and independence with daily activities through data collected in aged care homes across Australia. It also aims to identify what works in implementing the program, using interviews and case studies to refine strategies and ensure sustainability. The findings will be shared broadly, providing a roadmap to help the aged care sector adopt better care practices and meet government quality standards, ultimately benefiting residents, families, and staff in residential aged care.

## Mid-Career Research Fellowship Summaries

### HENRY BRODATY MID-CAREER RESEARCH FELLOWSHIP & DEMENTIA ADVOCATES AWARD

**Dr Marianne Coleman, Monash University**

*Designing a dementia-friendly eyecare pathway to help people with dementia “see well, to live well” in residential aged care*

This research project aims to develop a dementia-friendly eyecare pathway to improve the vision and overall well-being of people with dementia living in residential aged care. With up to one-third of aged care residents living with dementia experiencing significant, yet preventable, vision impairments, the study focuses on co-designing an eyecare pathway tailored to their unique needs. Collaborating with eyecare professionals, aged care staff, general practitioners, people with dementia, and their families, the project seeks to create a sustainable and easily implementable framework that enhances access to vital eyecare services like routine eye exams, updated prescriptions, and cataract surgeries. By addressing systemic barriers and integrating eyecare into dementia support, the research hopes to reduce falls, promote independence, and improve the quality of life for tens of thousands of Australians with dementia. The findings will also include educational resources and training for aged care staff to ensure long-term adoption and success of the pathway.

### DEMENTIA AUSTRALIA RESEARCH FOUNDATION MID-CAREER RESEARCH FELLOWSHIP

**Dr Annika van Hummel, Macquarie University**

*Piecing together the role of TDP43 in the Alzheimer's disease puzzle*

This research aims to explore the role of TDP43, a protein linked to neurodegeneration, in Alzheimer's disease, focusing on how it interacts with key proteins, amyloid-beta (A $\beta$ ) and tau. TDP43 is frequently found in the brains of people living with dementia, particularly those with more severe cognitive decline, yet its role in the disease remains poorly understood. Using advanced mouse models and gene delivery techniques, this project will investigate how TDP43 contributes to disease progression, examining its impact on brain function, protein interactions, and neuronal health. By identifying how TDP43 accelerates or worsens Alzheimer's disease pathology, the research seeks to uncover new therapeutic targets that could complement existing treatments focused on A $\beta$  and tau. This innovative study has the potential to transform our understanding of the complexity of Alzheimer's disease and pave the way for more effective, personalised approaches to combat dementia.

# Clinical Practice Post-graduate Stipend Summaries

## DR MAREE FARROW MEMORIAL CLINICAL PRACTICE POST-GRADUATE STIPEND

**Mr Nicholas Lawlis, University of Canberra**

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

This research explores how physical activity can support brain health and quality of life for people living with younger onset dementia, form of dementia diagnosed before age 65. It focuses on understanding the unique challenges faced by this group, including their physical, cognitive, and social needs. The study aims to identify barriers and enablers of physical activity for individuals with younger onset dementia and their carers, evaluate how activity levels affect brain function compared to late-onset dementia and non-dementia groups, and assess the immediate impact of aerobic exercise on cognitive function. Through a mix of interviews, physical activity measurements, and controlled exercise trials, the project will provide new insights into how exercise can be used as a therapeutic tool for younger onset dementia. The findings will help clinicians and caregivers create tailored physical activity programs, improve care strategies, and inform guidelines to enhance independence and quality of life for those living with younger onset dementia.

## DEMENTIA AUSTRALIA RESEARCH FOUNDATION CLINICAL PRACTICE POST-GRADUATE STIPEND

**Dr Antonia Clarke, Monash University**

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

This research explores the relationship between Place, Culture, and brain health among Aboriginal and Torres Strait Islander peoples, particularly in rural and remote communities. By using yarning - an Indigenous storytelling method - as a key approach, the study engages community members and healthcare workers to examine how connections to Culture, Community, and Country influence healthy brain aging and dementia awareness(/care). The project addresses the disproportionate rates of dementia experienced by Aboriginal and Torres Strait Islander peoples, particularly in rural areas, where access to specialist care is limited. Through collaborations with Aboriginal researchers and health services, and with guidance from an Aboriginal Reference Group, the study takes a holistic perspective, considering cultural, psychological, and socio-economic factors. The findings will guide the development of community-led, place-based strategies to promote brain health, improve healthcare education, and contribute to a more responsive healthcare system. Ultimately, this research aims to broaden the focus of traditional biomedical models for dementia prevention and care to include culturally relevant solutions that address the unique needs of Aboriginal and Torres Strait Islander peoples.

# Travel Grant Summaries

## LUCAS' PAPA FOUNDATION TRAVEL GRANT

**Dr Sharon Savage, The University of Newcastle**

*Rare Dementia Support - Sharing knowledge to build resources for younger onset dementia*

This research focuses on improving care for people with younger onset dementia, a rare form of dementia affecting individuals under 65. By collaborating with global experts in London and Norwich, the project aims to facilitate the development of practical guidelines and resources for implementing interventions tailored to people with younger onset dementia. This includes working on an adaptation of the MiNDToolkit - a resource for managing dementia symptoms - and writing sections of a new clinical handbook to support families and clinicians. The project will also engage with people living with younger onset dementia through the Rare Dementia Support Group to ensure their lived experiences shape the resources and interventions. By addressing unique challenges faced by individuals with younger onset dementia, such as parenting and financial strain, this work aims to bridge gaps in care and provide meaningful, evidence-based strategies to improve their quality of life.

## DEMENTIA AUSTRALIA RESEARCH FOUNDATION TRAVEL GRANT

**Dr Pratihtha Chatterjee, The University of Melbourne**

*Advancing fluid biomarkers for dementia management*

This research focuses on advancing fluid biomarkers for improved diagnosis and management of dementia, particularly in Dementia with Lewy Bodies (DLB) and a non-Alzheimer's disease dementia with Alzheimer's disease-like symptoms. By studying blood protein profiles, the project aims to identify markers that can predict how quickly DLB progresses, offering a less invasive and accessible method to identify DLB patients at risk of rapid deterioration. The second part of the research investigates dementia cases with Alzheimer's disease symptoms but lacking its defining biomarkers, aiming to characterise their unique pathology and corresponding fluid biomarkers. Through collaboration with global leaders in dementia research and access to large international datasets, the study seeks to validate these biomarkers and gather feedback on its findings at major scientific conferences. This work has the potential to improve early diagnosis and disease prognosis, enable personalised treatment strategies, ultimately enhancing patient outcomes and quality of life.

## **Dr Hannah Fair, University of Tasmania**

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

This research investigates how personality and loneliness influence the connection between social engagement and dementia risk, aiming to personalise prevention strategies. Using data from the ISLAND study, which tracks over 3,000 Tasmanians aged 50 and older, the project will explore how traits like extraversion and neuroticism affect the benefits of social engagement and how loneliness contributes to cognitive decline. The researchers will collaborate with ISLAND participants to co-design future studies that further examine these factors, ensuring that their lived experiences shape the research. Additionally, the project will equip the researchers to delve into social propagation - the spread of behaviours within social networks - and how it impacts dementia risk reduction, using advanced social network analysis techniques. By integrating insights from personality, loneliness, and social dynamics, this research aims to provide a starting point for refining dementia prevention messaging and developing more tailored interventions to help individuals and communities reduce their risk.

## **Dr Mohammad Shoaib Hamrah, 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*

This research focuses on adapting the Preventing Dementia Massive Open Online Course (PD MOOC) to better support Indian, Iranian, and Afghan migrants living in Australia. By creating culturally tailored versions of the course in Hindi, Farsi, and Dari, the project aims to address the unique health needs of these communities and improve their understanding of modifiable dementia risk factors. The study involves collaborating with experts and community members to refine translations, add culturally relevant content, and ensure accessibility. The project will evaluate how these adaptations impact participants' health literacy and ability to manage dementia risks, with workshops held in India, Dubai, and Tasmania. The results will guide the implementation of public health strategies to bridge gaps in dementia health literacy and promote healthier lifestyles among migrants. This initiative also seeks to expand the reach of the PD MOOC globally, offering a scalable model for culturally responsive health education.

## **Dr Gary Morris, University of Tasmania**

*Learning how to use human brain banks to uncover new mechanisms linked to dementia*

This research focuses on using human brain tissue to uncover new mechanisms in Alzheimer's disease and advance our understanding of how brain immune cells, called microglia, interact with blood vessels. By working with samples from an internationally renowned brain bank at Oxford University, and through the use of an innovative technique called multiplex immunohistochemistry, the study will examine how microglia, astrocytes, and other brain cells function in both healthy and Alzheimer's disease affected brains. This work could identify new targets for treatments aimed at protecting the blood-brain barrier and improving brain health. The researcher will also attend the Glia 2025 international conference to present findings, build collaborations, and establish expertise in the field of glial research. This project aims to develop new therapeutic approaches to combat Alzheimer's disease and improve care for those living with dementia.

**Dr Kris Tulloch, University of the Sunshine Coast**

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

This research project focuses on exploring innovative dementia care models through a cross-cultural study of facilities in Australia and the Netherlands. The project will examine Dutch innovative care facilities and green care farms, which are internationally recognised for their person-centred approaches to dementia care. By conducting site visits, interviews with residents, families, and staff, and collecting data on quality of life, the researcher aims to identify key practices that could be adapted to improve care in Australia. The study also includes collaboration with Dutch researchers at Maastricht University to share insights and develop cross-cultural recommendations for dementia care. This work will help create more supportive and effective care environments, promote autonomy and well-being for people living with dementia, and foster international partnerships to advance research and care practices globally.