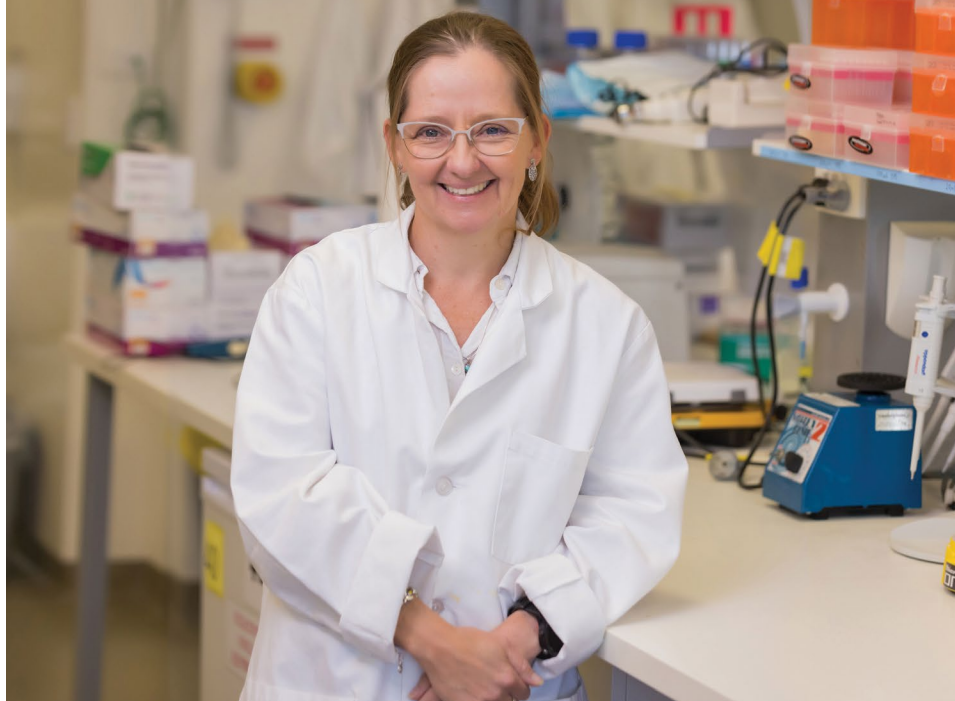


Thank you for helping to speed up
discoveries, foster breakthroughs,
and transform lives as a
NeuRA Discovery Partner



Impact

Transforming lives through discoveries & translation



33

research trials
& studies



352

research publications
in 2024



128

active research
projects in 2024

Trusted voice at the forefront of neuroscience research

27,996

times NeuRA research
cited over past 5 years*

*2020-2024 SciVal 28/3/25

2,825

media mentions
in 2024

311,077

NeuRA website
visits in 2024



NeuRA's staff are transforming lives.

Our research

Neurodegeneration

According to the World Health Organisation, more than one in three people are affected by neurological conditions, making it the leading cause of illness and disability worldwide. We are dedicated to finding new ways to prevent, detect and treat these disorders to ultimately deliver real-world impact.

594,400

prevalence of
neurodegenerative
disorders in Australia

\$27.5 billion

cost burden of
neurodegenerative
disorders in Australia

91

NeuRA researchers working
to lessen the burden of
neurodegenerative disorders

Mental health

From schizophrenia and bipolar disorder to wellbeing and resilience, our research is centred on the biological, psychological and social factors that influence our mental health.

7.3 million

prevalence of
mental health disorders
in Australia

\$20 billion

cost burden of
mental health disorders
in Australia

44

NeuRA researchers
working to reduce
mental health disorders

Translational neuroscience

From pain management to spinal cord and motor vehicle injury; sleep apnoea to falls prevention, we focus on translating our research beyond the lab to directly benefit the health and lives of people everywhere.

5.8 million

prevalence of health
conditions NeuRA's
translational neuroscience
researchers study

\$200 billion

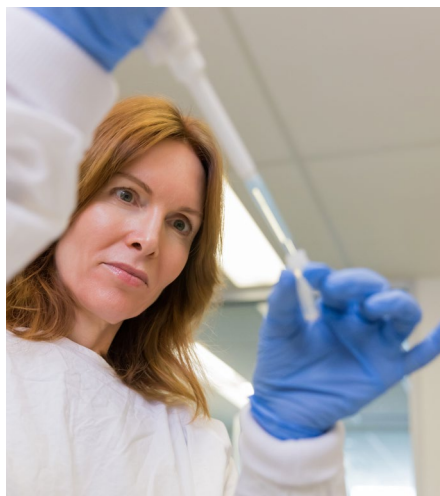
cost burden in Australia

207

NeuRA researchers working
to improve prevention,
treatment and care associated
with these conditions

Neurodegeneration

Sydney Brain Bank collaboration investigates existence of brain microbiome



Dr Claire Shepherd in the Sydney Brain Bank.

The brain has long been thought to be a sterile environment, but evidence is emerging that it may contain its own microbiome – that is a community of microbes, such as bacteria, fungi and viruses, and their genes.

The Sydney Brain Bank at NeuRA is key to Australian-first research investigating the presence of microbiome in the brain and, importantly, the role it plays in neurodegeneration and healthy brain ageing.

Now, an Australian-first multidisciplinary research collaboration led by Professor Karen Mather (UNSW's Centre for Healthy Brain Ageing), with Dr Claire Shepherd (Sydney Brain Bank) and Dr Fatima El-Assaad (UNSW Microbiome Research Centre), will utilise advanced scientific methods, including metaproteomics and metagenomics, with cases from the Sydney Brain Bank to definitively demonstrate whether a brain microbiome exists and is altered during neurodegeneration.

The researchers hope this line of work could one day demonstrate how modification of the microbiome could impact our risk of neurodegenerative disease, paving the way for groundbreaking new approaches to stemming cognitive decline.

Schizophrenia

New schizophrenia and bipolar disorder findings: a step toward personalised medicine in psychiatry



Dr Hayley North from Professor Cynthia Shannon Weickert's team with Associate Professor Jan Fullerton.

New research led by Prof Cynthia Shannon Weickert and A/Prof Jan Fullerton has uncovered a unique link between the immune system and brain health in schizophrenia and bipolar disorder, in a region of the brain that is critical for the birth of new neurons.

They found an immune pathway, known as the complement system, behaves differently in high-inflammation patients with these related psychiatric conditions, suggesting that this mechanistic pathway may differentially impact these diagnoses, which have both shared and distinct clinical features.

This discovery has the potential to lead towards targeted therapies, with researchers believing that a greater understanding of how the complement system influences stem cell behaviour could lead to the development of treatments that restore healthy neurogenesis in people with these diagnoses, potentially improving symptoms or even halting progression.

Falls, Balance & Injury

Clinical care standard critical to positive outcomes for hip fracture patients



Dr Lara Harvey found high level care improved hip fracture outcomes for patients.

Hip fractures are common and often associated with substantial morbidity, mortality, reduced quality of life and loss of independence. Recent research led by Senior Research Fellow, Dr Lara Harvey, has found that when people receive care that is in line with the Australian Commission on Safety and Quality in Health Care's *Hip Fracture Care Clinical Standard*, the risk of death in the short and longer term is significantly reduced.

These findings follow the 2023 launch of the Commission's revised Hip Fracture Care Clinical Standard, which was reviewed and updated by a working group chaired by NeuRA's Professor Jacqui Close to provide clinicians and health services with the most current, evidence-informed guidance on delivering high quality care for people with a hip fracture.

Older Driver research

New initiatives launched to reduce older driver injuries and accidents



NeuRA researchers have been working on initiatives to support older drivers.

Each year, around 175 Australians aged 65 years and over die in car crashes, and more than 4,000 are hospitalised. In 2024, NeuRA researchers Scientia Professor Kaarin Anstey and Professor Julie Brown launched new, evidence-based initiatives to drive down these alarming statistics.

[Ageingwellontheroad.com.au](https://ageingwellontheroad.com.au) was designed by Prof Anstey's team to provide a one-stop-shop for older drivers to access information about driving and their health, navigate licencing rules and regulations in their state, and to help them understand when it's time to cease driving.

New guidelines for older drivers and passengers were co-developed by researchers from the Transurban Safety centre at NeuRA, The George Institute for Global Health and Occupational Therapy Australia. The guidelines drew on the expertise of multidisciplinary experts to provide medical practitioners, allied health, and road safety professionals with practical and accurate evidence-based advice on safe and comfortable travel for older people. Three critical areas are addressed: seatbelt safety, safe and appropriate vehicle adjustments, and safely minimising pain that can come from being in a vehicle for extended periods.



The Get-A-Grip trial is underway supported by Project Spark.

Neuroscience Research Australia

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