

Each year, hundreds of thousands of Australians and their families live with incurable neurodegenerative diseases like dementia, Parkinson's disease and motor neurone disease (MND). As our population ages, the number of Australians living with these diseases will increase dramatically – unless we can find a cure.

Macquarie University is home to some of Australia's leading neurodegenerative disease researchers. Our centres of excellence include the Dementia Research Centre, the Motor Neuron Disease Research Centre, Macquarie University Health Neurology and the Neurodegenerative Disease Biobank. Our discoveries have already led to innovative treatments that improve and extend the lives of patients with neurodegenerative diseases. With your help, we can do more – to accelerate therapies from lab bench to bedside, and one day soon, find a cure that gives minds a future.



MND-causing genetic mutations identified, leading to promising new treatments



World-first disease-modifying trial underway for prodromal Parkinson's disease



Fundamental mechanisms in ALS/FTD identified, leading to first-in-human trials in 2025



New therapies rapidly translated from bench to bedside through biotech partnerships



MOTOR NEURONE DISEASE

For people affected by MND, the Motor Neuron Disease Research Centre harnesses a large, integrated discovery and clinical program to deliver advances in patient outcomes and improve the lives of MND patients and their families. The Centre provides world-class integrated multidisciplinary care, covering all aspects from initial diagnosis to disease management and measurement of MND. Our research partnerships at local, national and international levels have led to breakthrough treatments that both prolong and improve quality of life for MND patients and their families, while we continue our urgent search for a cure.

OUR ACHIEVEMENTS

- · Australia's largest program of clinical research into MND and related disorders
- · MND-causing genetic mutations identified, leading to development of a suite of promising new treatments
- · Biomarkers investigated to allow earlier diagnosis and better evaluation of therapeutic efficacy

PARKINSON'S DISEASE

The Parkinson's disease research clinic at Macquarie University is developing better patient care and family support for people living with Parkinson's disease and related conditions including dementia with Lewy bodies, isolated REM sleep behaviour disorder (RBD), progressive supranuclear palsy and multiple system atrophy. We are running a number of disease-modifying and symptomatic trials and are investigating the causes underpinning various symptoms to help develop novel therapeutic approaches. This includes treating the neuroinflammation that is driving the disease at the earliest stages, so its progress can be stopped before permanent damage is done to cells.

OUR ACHIEVEMENTS

- World-first disease-modifying trial underway for prodromal Parkinson's disease, treating patients with isolated RBD
- · Clinical lead for the Australian Parkinson's Mission, leading disease-modifying trials for Parkinson's patients across Australia
- World-first studies showing neural changes underlying hallucinations, gait freezing and cognitive fluctuations. Clinical trials underway to treat these challenging symptoms

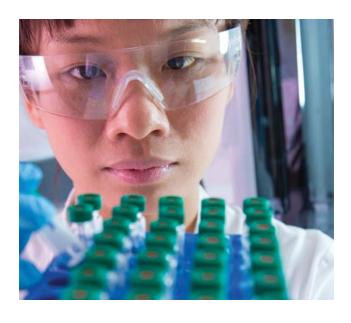


DEMENTIA

Macquarie University's Dementia Research Centre (DRC) brings together world-leading experts in neuroscience and translational dementia research. Established in 2018, the DRC is the first dementia research centre in New South Wales fully dedicated to discovery-based research and drug development for Alzheimer's disease and other neurodegenerative conditions. In the past seven years, DRC researchers have discovered the mechanisms driving Alzheimer's disease, MND and frontotemporal dementia (FTD), leading to clinical trials of a new gene therapy at Macquarie University Hospital in 2025 – providing hope that one day soon there will be a cure for this lethal disease.

OUR ACHIEVEMENTS

- Fundamental mechanisms in ALS/FTD identified, leading to first-in-human trials in 2025
- · Novel interneurons driving Alzheimer's onset discovered
- New therapies rapidly translated from bench to bedside through partnerships with biotech companies







WHY SUPPORT NEURODEGENERATIVE DISEASE RESEARCH AT MACQUARIE UNIVERSITY?

With your support, we can fund urgent research into treatments for Parkinson's disease, dementia and MND as we work towards finding a cure.

Our goal is to make ourselves redundant. With your help we can get there, because every donation makes a real difference to the lives of those suffering with these diseases.

YOUR DONATION FUELS:

- Faster translation of laboratory breakthroughs into clinical trials
- Patient-focused research with direct pathways to new treatments
- Training and mentoring of Australia's next leaders in neurodegenerative disease research
- Global collaboration at the cutting edge of neuroscience and biotech



SCAN TO MAKE A TAX-DEDUCTIBLE DONATION NOW

awc.alumni.mq.edu.au/2025neurodm

