

ABOUT MS RESEARCH AUSTRALIA



MS Research Australia is the largest national not-for-profit organisation dedicated to funding, coordinating and advocating for multiple sclerosis in Australia as part of the worldwide effort to solve MS. Our goal is to accelerate research into the cause, treatments and prevention of MS, with the ultimate aim of finding a cure for MS. A small team of dedicated individuals are responsible for all of the aspects of the operation, ensuring overheads are low. Therefore, more of the fundraising dollar can be directed straight into the best MS research projects.

ABOUT MS RESEARCH AUSTRALIA GRANTS



MS Research Australia operates with a robust and transparent research strategy, ensuring that scientific experts guide the funding model and target the priorities identified by the MS community in Australia. The International Research Review Board serves as the main scientific advisory group to MS Research Australia. They assist in identifying the strengths of Australian research, ensuring that MS Research Australia's strategy complements the global research effort. In addition, the Research Management Council consists of a multidisciplinary team that oversees the peer-review process of all funding applications and allocations for investigator-driven research. Research applications are evaluated on both their scientific merit and relevance to MS. The grant process is conducted with integrity and transparency, and is modelled on the most stringent grant review systems worldwide, including the Australian Government's National Health and Medical Research Council review process.

For more information on the scientific committees, research strategy and funded projects please visit www.msra.org.au



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SNAPSHOT

PROJECTS STARTED IN 2018 FUNDED BY MS RESEARCH AUSTRALIA

NEUROBIOLOGY

IDENTIFYING THE TRIGGERS FOR MS



Menzies Institute for Medical Research, TAS
 Dr Yuan Zhou will study genes on the X chromosome and may discover why more females than males develop MS.

Menzies Institute for Medical Research, TAS
 Dr Bennet McComish will look across all genes in people from families with MS.

Westmead Institute for Medical Research, NSW
 Dr Lawrence Ong will investigate if vitamin D can switch genes on or off in immune cells in children, which may prevent the development of MS.

University of Sydney, NSW
 Dr Todd Hardy will travel to the USA to investigate a specific severe form of MS called Balo's disease.

GENETICS & EPIDEMIOLOGY

DEVELOPING BETTER TREATMENTS

University of Melbourne, VIC
 Associate Professor Peter Crouch will begin preclinical trials of a copper based therapy for progressive MS.

RMIT University, VIC
 Associate Professor Sarah Spencer will investigate how the antibiotic minocycline affects immune cells called microglia to delay the onset of MS.

University of Melbourne, VIC
 Associate Professor Justin Rubio will study the DNA from single cells in the brain to better understand progressive MS.

University of Melbourne, VIC
 Dr Ai-Lan Nguyen will research different methods for scanning the brain to determine if they can predict changes in disability.



A CURE FOR MS VIA REPAIR OR REGENERATION OF CELLS

Florey Institute of Neuroscience and Mental Health, VIC
 Professor Trevor Kilpatrick will investigate how a protein called Tryo3 affects the formation of myelin.

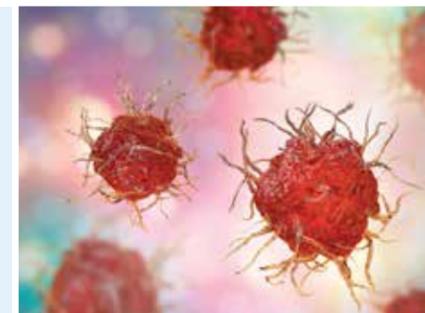
Monash University, VIC
 Dr Steven Petratos is testing a drug that could stop and potentially reverse progressive MS.

Menzies Institute for Medical Research, TAS
 Dr Carlie Cullen will determine if memory tasks can repair the damage caused by MS.

Menzies Institute for Medical Research, TAS
 Dr Kimberley Pitman will travel to Germany to learn a technique for studying progressive MS in the laboratory.



IMMUNOLOGY



University of Sydney, NSW
 Professor Georges Grau is determining the types and numbers of different immune cells during times of remission in MS.

Westmead Institute for Medical Research, NSW
 Dr Fiona McKay is researching the role of immune cells called NK cells in MS.

Westmead Institute for Medical Research, NSW
 Ms Nicole Fewings will be examining how to improve the function of specific immune cells called NK cells to reduce the severity of MS.



SOCIAL & APPLIED RESEARCH



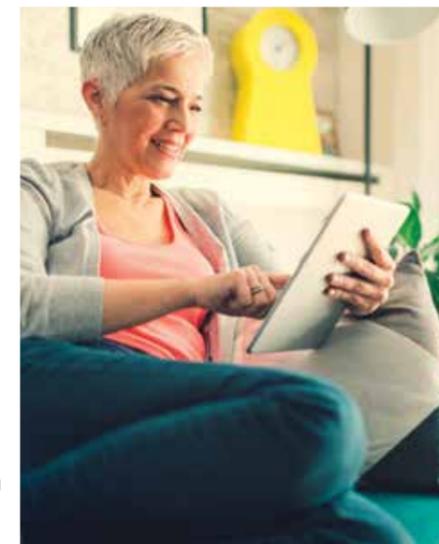
University of Sydney, NSW
 Associate Professor Ollie Jay will investigate ways to reduce heat-related fatigue in people with MS.

Monash University, VIC
 Mr Daniel Merlo will study if a web based program can measure changes in thinking abilities.

University of Sydney, NSW
 Ms Amy-Lee Sesel will develop and evaluate an online program to reduce some symptoms of MS.

University of Sydney, NSW
 Dr Hans Bogaardt will determine if electrical stimulation of muscles can help improve swallowing.

Neuroscience Research Australia, NSW
 Professor Stephen Lord will develop a training program to help people with MS improve recovery from slips or trips to prevent falls.



KEY ■ PROJECT GRANT ■ FELLOWSHIP ■ SCHOLARSHIP ■ INCUBATOR GRANT ■ TRAVEL AWARD

IDENTIFYING THE TRIGGERS FOR MS

NEUROBIOLOGY

- Working across Australia**
The MS Research Australia Brain Bank, based at the University of Sydney is securing valuable MS tissue from donors across Australia, to be used by researchers to advance our understanding of the neuropathology of MS.
- RMIT University, VIC**
Dr Mary Tolcos will determine if a lack of oxygen early in life leads to impaired myelin repair in adulthood.

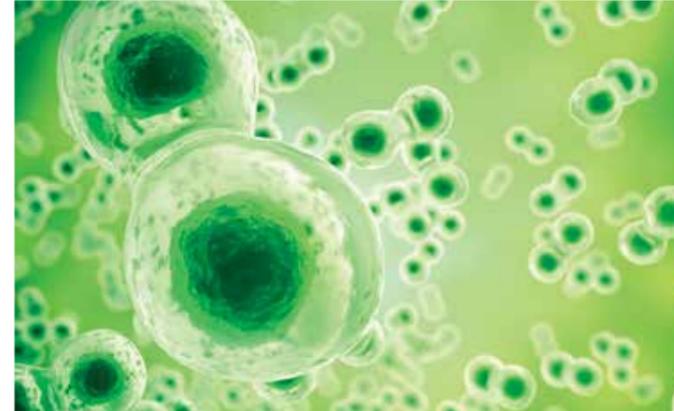


GENETICS & EPIDEMIOLOGY

- Working across Australia and NZ**
ANZgene is a major collaboration mapping the genetic make-up of people with MS to identify which genes influence MS susceptibility and why.
- Hunter Medical Research Institute, NSW**
Dr Vicki Maltby is profiling molecules that control gene activity in the immune cells of people with MS, to identify factors contributing to disease onset and prognosis.
- Westmead Institute for Medical Research, NSW**
Dr Grant Parnell is researching the ways that vitamin D protects against the development of MS.
- Westmead Institute for Medical Research, NSW**
Dr Lawrence Ong is investigating the mechanisms by which changes to vitamin D genes increase the risk of MS.
- Florey Institute of Neuroscience and Mental Health, VIC**
Dr Chris Dwyer is examining the role of a specific gene called MERTK in MS and its effects on the immune system.

IMMUNOLOGY

- Hudson Institute of Medical Research, VIC**
Dr Claire McCoy is researching how to produce myelin via signals from immune cells called macrophages.



SOCIAL & APPLIED RESEARCH

- Menzies Institute for Medical Research, TAS**
Associate Professor Ingrid van der Mei manages the Australian MS Longitudinal Study, which is tracking the practical issues in the lives of people affected by MS including quality of life, economic impact and employment.
- University of Sydney, NSW**
Ms Georgia Chaseling is determining whether regulation of body temperature during exercise is different in people with MS.



DEVELOPING BETTER TREATMENTS

- Working across Australia**
Haematologists and neurologists around Australia are running the Australian MS Haematopoietic Stem Cell Transplant Register. They track the effectiveness of this chemotherapy treatment with bone marrow transplants to treat MS.
- Working across Australia and internationally**
MS Research Australia is a managing member of the International Progressive MS Alliance to accelerate treatments for progressive MS.
- Menzies Institute for Medical Research, TAS**
In this Paired Fellowship Dr Kaylene Young and Professor Bruce Taylor, are working towards new discoveries that may provide treatments to protect and repair the nervous system.
- University of Melbourne, VIC**
Ms Sanuji Gajamange is testing a new type of brain scanning technique that is very sensitive to identifying neurodegeneration.
- Brain and Mind Centre, NSW**
Dr Joshua Barton is developing a new way of monitoring brain changes in early MS using tablet technology.

- Working across Australia and NZ**
The PrevANZ Vitamin D Prevention Trial is measuring whether vitamin D can prevent MS in people at high risk of developing the disease.
- James Cook University, QLD**
Professor Alan Baxter is looking at the role of immune gene networks in MS.
- Monash University, VIC**
Dr Vilija Jokubaitis is investigating whether genetics can be used to predict future outcomes in progressive MS and ensure people receive the best treatment option for them.
- Australian Regenerative Medicine Institute, VIC**
Dr Natalie Payne is developing a cell based therapy for MS.

- University of Technology Sydney, NSW**
Dr Sheila Donnelly is researching the mechanisms by which parasitic worms may prevent MS.
- Australian National University, ACT**
Dr Anne Bruestle is investigating the actions of a type of immune cell called a neutrophil in MS and looking at ways this could be blocked.
- University of New South Wales, NSW**
Dr Jennifer Massey is examining the changes to the immune system following autologous haematopoietic stem cell transplant (AH SCT) for MS.

- Working across Australia and NZ**
The MS Research Australia Clinical Trials Network coordinates information about MS trials for the MS community.
- University of Melbourne, VIC**
Dr Litza Kiroopoulos is running a clinical trial into cognitive behavioural therapy for depression in MS.
- University of New South Wales, NSW**
Dr Phu Hoang is investigating the effect of exercise on ankle stiffness in MS.
- Murdoch University, WA**
Dr Yvonne Learmonth will survey the MS community to find ways to get people with MS to engage in exercise.

A CURE FOR MS VIA REPAIR OR REGENERATION OF CELLS

- Australian Regenerative Medicine Institute, VIC**
Dr Tobias Merson is determining whether stimulating brain activity can improve myelin repair.
- University of Melbourne, VIC**
Associate Professor Richard Hughes is developing a new treatment for MS based on peptides that promote myelin growth.
- Menzies Institute for Medical Research, TAS**
Dr Kaylene Young is testing whether enhancing electrical activity in the brain could lead to myelin repair in MS.
- University of Melbourne, VIC**
Dr David Gonsalvez is targeting the Wnt molecular signalling pathway to promote myelin repair in MS.
- Menzies Institute for Medical Research, TAS**
Dr Carlie Cullen is investigating the use of transcranial magnetic stimulation therapy as a treatment to repair myelin damage in MS.

