

## ABOUT MS RESEARCH AUSTRALIA



MS Research Australia is the largest national not-for-profit organisation dedicated to funding, coordinating, educating 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](http://www.msra.org.au)



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# SNAPSHOT

PROJECTS STARTED IN 2019 FUNDED BY MS RESEARCH AUSTRALIA

### NEUROBIOLOGY

#### IDENTIFYING THE TRIGGERS FOR MS



#### DEVELOPING BETTER TREATMENTS

- Brain and Mind Centre, NSW**  
Dr Chenyu Wang will use MRI to monitor silent disease progression in MS.
- Perron Institute for Neurological and Translational Science, WA**  
Ms Lillian Toomey is investigating whether damage to myelin support cells drives MS at a molecular level.
- Brain and Mind Centre, NSW**  
Dr Justin Garber is using MRI to track disease and severity in progressive MS.
- University of Newcastle, NSW**  
Dr Saadallah Ramadan is investigating how MRI can be used to evaluate the treatment of fatigue and depression in MS.
- University of Melbourne, VIC**  
Dr Ai-Lan Nguyen is travelling to Genoa to form a collaboration that aims to improve clinical decisions and care, using MRI in MS.

#### A CURE FOR MS VIA REPAIR OR REGENERATION OF CELLS

- University of Melbourne, VIC**  
Dr Junhua Xiao is investigating how nerve cells influence myelin repair in the brain.
- University of Melbourne, VIC**  
Dr Simon Murray is investigating ways to promote myelin repair in the brain.
- University of Sydney, NSW**  
Associate Professor Anthony Don is determining the biological pathways that promote the creation of new myelin in MS.
- Monash University, VIC**  
Dr Steven Petratos is developing novel drugs to promote neuroprotection and repair in progressive MS.

### GENETICS & EPIDEMIOLOGY

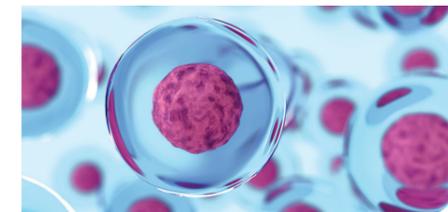
- Hunter Medical Research Institute, NSW**  
Professor Rodney Scott is identifying markers of gene activity that are associated with disease onset and severity.
- Menzies Institute for Medical Research, TAS**  
Dr Yuan Zhou is travelling to Boston to develop a pipeline for the analysis of sex chromosomes in MS.



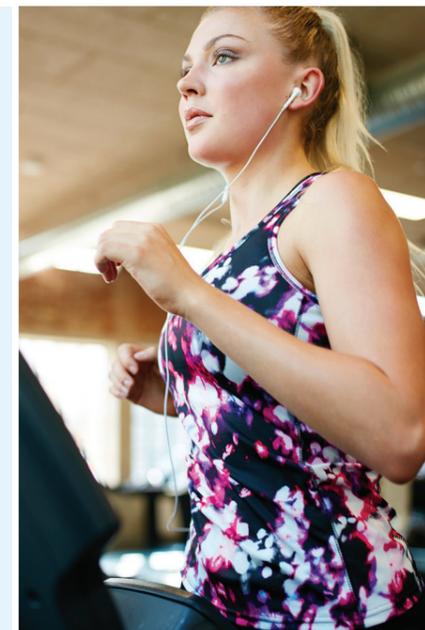
### IMMUNOLOGY

- Westmead Institute for Medical Research, NSW**  
Professor David Booth is developing a test in immune cells for individual vitamin D response.

- University of Queensland, QLD**  
Dr Stefan Blum is developing a test to personalise treatment with the MS medication, natalizumab.
- Monash University, VIC**  
Dr James Harris is exploring how a specific molecule, macrophage migration inhibitory factor (MIF) regulates inflammation in MS.



### SOCIAL & APPLIED RESEARCH



- University of Melbourne, VIC**  
Professor Mary Galea is tracking walking and balance changes in people with MS.
- Curtin University, WA**  
Dr Lucinda Black is identifying dietary factors that reduce the risk of onset and early disease progression in MS.
- Menzies Institute for Medical Research, TAS**  
Ms Alice Saul is examining the role of diet in symptoms and progression of MS.
- University of Wollongong, NSW**  
Dr Yasmine Probst is creating new methods to analyse food and nutrient intake in MS.
- Australian National University, ACT**  
Dr Jane Desborough will develop a toolkit for scientists and people with MS to work together on collaborative MS research.
- Curtin University, WA**  
Dr Lucinda Black will be travelling to Southern California to conduct research into the relationship between diet and the risk of MS.



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

### 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.



### 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.

#### Menzies Institute for Medical Research, TAS

Dr Yuan Zhou is studying genes on the X chromosome and may discover why more females than males develop MS.

#### Westmead Institute for Medical Research, NSW

Dr Grant Parnell is researching the ways that vitamin D protects against the development 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.

#### Garvan Institute of Medical Research, NSW

Dr Dan Suan is looking into the genetics of individual immune cells in people with relapsing-remitting MS.

### IMMUNOLOGY

#### Deakin University, VIC

Dr Wolfgang Marx is exploring if there are differences in gut bacteria associated with symptoms of MS, diet and medication use.

#### Perron Institute for Neurological and Translational Science, WA

Dr Marzena Pedrini is researching a possible biological marker of MS in blood.

#### Hunter Medical Research Institute, NSW

Professor Jeannette Lechner-Scott is investigating whether red blood cells are sending messages to their neighbours and do these messages play a role in MS.



### 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.



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#### 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.

#### University of Melbourne, VIC

Associate Professor Peter Crouch is conducting preclinical trials of a copper based therapy 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.

#### RMIT University, VIC

Associate Professor Sarah Spencer is investigating how the antibiotic minocycline affects immune cells called microglia to delay the onset of MS.

#### 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.

#### University of Melbourne, VIC

Associate Professor Justin Rubio is studying the DNA from single cells in the brain to better understand progressive 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.

#### University of Melbourne, VIC

Dr Ai-Lan Nguyen is researching different methods for scanning the brain to determine if they can predict changes in disability.

#### 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

Associate Professor Fiona McKay is researching the role of immune cells called NK cells in 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 Queensland, QLD

Dr Anna Hutton is running a clinical trial to test whether wearing textured shoe insoles may improve the gait of people with MS.

#### University of Sydney, NSW

Associate Professor Ollie Jay is investigating ways to reduce heat-related fatigue in people with MS.

#### 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.

#### Monash University, VIC

Mr Daniel Merlo is studying if a web based program can measure changes in thinking abilities.

#### University of Sydney, NSW

Ms Amy-Lee Sesel is developing and evaluating an online program to reduce some symptoms of MS.

#### University of New South Wales, NSW

Professor Danny Eckert is identifying the causes of sleep apnoea in people with MS.

