

## ABOUT MS RESEARCH AUSTRALIA



MS Research Australia is the largest national not-for-profit organisation dedicated to funding and coordinating multiple sclerosis research in Australia, as part of the worldwide effort to solve MS. Its goal is to accelerate research into the cause, better treatments and prevention, with the aim of ultimately finding a cure for MS. There is a small team of dedicated individuals responsible for all aspects of the operations, ensuring overheads are low so that more of the fundraised dollar can be directed straight to the best MS research projects.

## ABOUT MS RESEARCH AUSTRALIA GRANTS



MS Research Australia operates with a robust and transparent research strategy, ensuring that scientific expertise guides the funding model and targets the priorities identified by the Australian MS community. 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 research strategy complements the global research effort. In addition, the Research Management Council consists of a multidisciplinary team overseeing the peer-review process of all funding applications and allocations for investigator-driven research. Research applications are evaluated on both their scientific merit and high 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 2017 FUNDED BY MS RESEARCH AUSTRALIA

### IDENTIFYING THE TRIGGERS FOR MS

NEUROBIOLOGY

**Florey Institute of Neuroscience and Mental Health, VIC**  
 Associate Professor Justin Rubio is researching whether genetic changes specific to the brain contribute to the progression of MS.

### DEVELOPING BETTER TREATMENTS

**Centre for Eye Research Australia, University of Melbourne, VIC**  
 Dr Peter van Wijngaarden is developing a new laboratory model of MS that targets damage to eye nerves and will enable new therapies to be tested.

**Brain and Mind Centre, NSW**  
 Dr Joshua Barton is developing a new way of monitoring brain changes in early MS using tablet technology.

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

**Monash University, 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 determining whether enhancing electrical activity in the brain could lead to myelin repair in MS.

**St Vincent's Centre for Applied Medical Research, NSW**  
 Dr Michael Lovelace is travelling to McGill University in Canada to learn a new technique to isolate myelin producing cells in the human brain for research in the laboratory.

GENETICS & EPIDEMIOLOGY

**University of Melbourne, VIC**  
 Professor Helmut Butzkueven is looking at the way that vitamin D changes gene activity in immune cells in people at risk of developing MS.

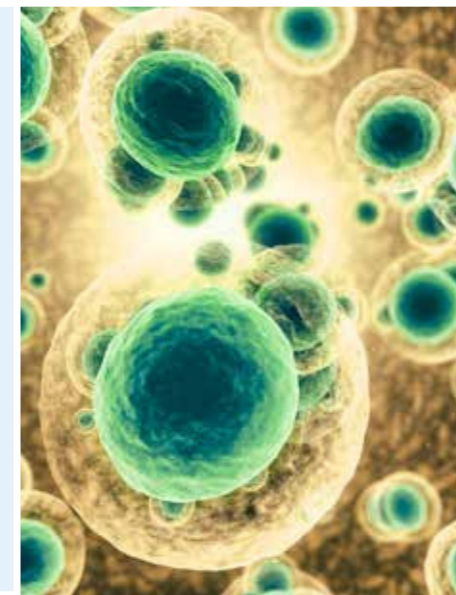
**The Westmead Institute for Medical Research, NSW**  
 Dr Grant Parnell is researching the ways that vitamin D protects against the development of MS.

**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.

**University of Newcastle, NSW**  
 Associate Professor Jeannette Lechner-Scott is investigating whether microRNA in red blood cells can be used as a marker of progression in MS.

**University of Melbourne, 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.

IMMUNOLOGY



**University of Sydney, NSW**  
 Associate Professor Scott Byrne is determining the way that sunlight is able to suppress the immune system to develop a new therapy for MS.

**University of Sydney, NSW**  
 Angelica Panopoulos is investigating whether tiny cell fragments called microparticles are involved in the early stages of MS development.

**University of New South Wales, NSW**  
 Dr Jennifer Massey is examining the changes to the immune system following autologous haematopoietic stem cell transplant (AHST) for 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 neutralised.



SOCIAL & APPLIED RESEARCH



**University of New South Wales, NSW**  
 Dr Phu Hoang is investigating the effect of exercise on ankle stiffness in MS.



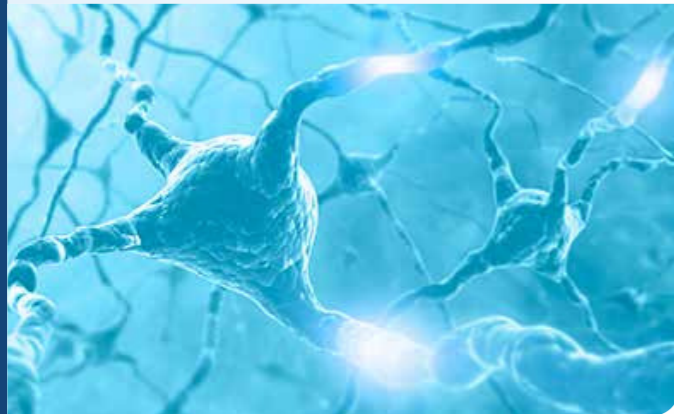
**KEY** ■ INCUBATOR GRANT ■ FELLOWSHIP ■ SCHOLARSHIP ■ PROJECT GRANT ■ TRAVEL AWARD



### 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, for 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.

#### Hunter Medical Research Institute, NSW

Associate Professor Jeannette Lechner-Scott is looking at how the environment affects gene activity in the immune system.

#### The Westmead Institute for Medical Research, NSW

Dr Lawrence Ong is researching the mechanisms by which changes to vitamin D genes increase the risk of MS.

#### 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.

#### The Florey Institute for Neuroscience and Mental Health, VIC

Dr Judith Field is using next generation genetics to profile the genes of an extended family with primary progressive MS to determine how this form of MS develops.

### IMMUNOLOGY



### 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 issues of practical importance 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.



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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 efficacy of autologous haematopoietic stem cell transplant (bone marrow transplants) to treat MS.

#### University of Melbourne, VIC

Ms Sanuji Gajamange is testing a new type of brain scanning technique that is very sensitive to identifying neurodegeneration.

#### University of Western Australia, WA

Associate Professor Melinda Fitzgerald is testing whether oxidative damage to myelin producing cells occurs in MS and whether this can be blocked to prevent damage.

#### 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 role of immune gene networks in MS.

#### Menzies Institute for Medical Research, TAS

Professor Bruce Taylor is investigating the long term outcomes of treating 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.

#### Kids Research Institute, NSW

Dr Fabienne Brilot-Turville is developing a diagnostic tool for bilateral and relapsing optic neuritis in adults and children.

#### University of Technology Sydney, NSW

Dr Sheila Donnelly is researching the mechanisms by which parasite worms may prevent MS.

#### Garvan Institute of Medical Research, NSW

Associate Professor Cecile King is identifying ways to improve immune defence against infections in people with MS receiving B cell depleting therapies.

#### The Florey Institute for Neuroscience & Mental Health, VIC

Dr Ben Gu is determining whether tiny cell particles in the blood called microvesicles are involved in attacks of 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 Hatton is running a clinical trial to test whether wearing textured shoe insoles may improve the gait of people with MS.

#### University of Melbourne, VIC

Dr Litza Kiroopoulos is running a clinical trial into cognitive behavioural therapy for depression in MS.

