

SNAPSHOT

of MSRA-funded projects starting 2013

KEY

- INCUBATOR GRANT
- VACATION SCHOLARSHIP
- MAJOR COLLABORATIONS AND INFRASTRUCTURE
- SCHOLARSHIP
- FELLOWSHIP
- PROJECT GRANT

IDENTIFYING THE TRIGGERS FOR MS

GENETICS & EPIDEMIOLOGY

Hunter Medical Research Institute, NSW

■ Dr Rod Lea will provide bioinformatics support primarily to the MSRA platforms, ANZgene and Proteomics, working across Australia and New Zealand.

DEVELOPING BETTER TREATMENTS

James Cook University, QLD

■ Dr Margaret Jordan (awarded a prestigious Betty Cuthbert Fellowship) will determine how genetic risk factors affect the function of immune cells in MS.

Menzies Research Institute Tasmania

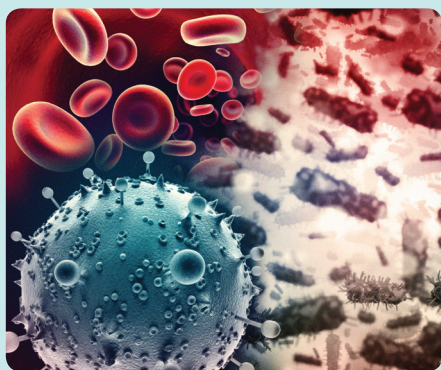
■ Dr Steve Simpson Jr aims to create an algorithm to predict disease activity and disease course for people with MS.

A CURE FOR MS VIA REPAIR OR REGENERATION OF CELLS

University of Melbourne

■ Dr Ben Emery will determine which genes are influenced by a molecule called a myelin regulatory factor (MRF) that controls myelination during development.

NEUROBIOLOGY



La Trobe University, VIC

■ Tao Nelson, under the supervision of Dr Jacqueline Orian, will create a model to test neuroprotective effects of fingolimod.

Baker IDI, Heart & Diabetes Institute, VIC

■ Prof Peter Karlheinz is investigating the role of platelets in MS inflammation and the potential use of imaging platelets for the early diagnosis of MS.

Monash Immunology and Stem Cell Laboratories, VIC

■ Jae Lee, under the supervision of Dr Steven Petratos, will block a molecule known to cause axonal damage in MS, as an option for repair.

■ Dr Natalie Payne will be travelling to international laboratories to learn techniques for stem cell research.

IMMUNOLOGY & VIROLOGY

University of Sydney

■ Dr Scott Byrne will investigate the mechanisms behind UV suppression of the immune system, particularly the role of B regulatory cells.

University of Queensland

■ Prof Michael Pender continues his work on immune cells and infection with Epstein-Barr Virus (EBV) in the development of MS.

University of Western Australia

■ Prof Allan Kermod will look at the overall interaction of genetic and environmental risk factors and EBV in MS.

University of Adelaide

■ Dr Iain Comerford is studying the role of white blood cell signalling in MS with the aim of preventing neuroinflammation.

■ Duncan McKenzie, under the supervision of Prof Shaun McColl, will study the role of immune cell movements into the nervous system.

Garvan Institute of Medical Research, NSW

■ Dr Sue Liu will identify ways to improve immune defence against infections in people with MS receiving B cell depleting therapies.

SOCIAL & APPLIED RESEARCH



Monash University, VIC

■ Louise Kurczycki will study whether treatment initiated by a continence nurse will help to improve bladder and bowel problems in people with MS.



SNAPSHOT

of MSRA-funded projects started prior 2013

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- SCHOLARSHIP
- FELLOWSHIP



IDENTIFYING THE TRIGGERS FOR 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.

Westmead Millennium Institute, NSW

■ A/Prof David Booth is investigating how MS susceptibility genes affect the immune system.

At Griffith University

■ Prof Simon Broadley is working on antibody detection and genetics screening in a rare variant of MS, neuromyelitis optica (NMO).

DEVELOPING BETTER TREATMENTS

Working across Australia and NZ

■ **The PrevANZ Vitamin D Prevention Trial** will measure the effects of vitamin D in people susceptible to MS.

Westmead Millennium Institute, NSW

■ A/Prof David Booth will further examine the genetics of MS.
■ Prof Graeme Stewart will examine the role of genetics in MS treatment response.

At the Menzies Research Institute Tasmania

■ Dr Ingrid van der Mei will examine the role of lipids in the progression of MS.

At Griffith University

■ Dr Wajih ul Hassan Bukhari, with Prof Simon Broadley, will examine features of NMO in Australia and validate a diagnostic blood test.

At the University of Melbourne

■ Dr Tomas Kalincik will assess the outcomes of treatment decisions and develop tools to tailor individual treatments.

A CURE FOR MS VIA REPAIR OR REGENERATION OF CELLS



NEUROBIOLOGY

University of Sydney

■ Dr John Parratt, working closely with Prof John Prineas, is investigating how lesions form in MS.

Working across Australia

■ The **MSRA 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.

University of Melbourne

■ Dr Junhua Xiao will examine small peptides for their potential to promote myelination and provide a new treatment option.

■ Laura Dagley will continue her work to identify protein markers of disease in MS.

Working across Australia

■ Prof Allan Kermode at the Sir Charles Gardiner Hospital, WA, will work with Prof Jim Wiley and colleagues around Australia to establish the **Australian MS HSCT Register**. They will track the efficacy of haematopoietic stem cell treatments (bone marrow transplants) to treat MS.

University of Adelaide, Monash University, Sir Charles Gairdner Hospital and the University of Queensland

■ Prof Shaun McColl leads the **Proteomics research platform** in a national collaboration to identify the key proteins that cause MS.

At St Vincent's Hospital, Sydney

■ Prof Bruce Brew will optimise tryptophan metabolism in stem cells to promote MS repair.

At the Menzies Research Institute, Tasmania

■ Dr Kaylene Young will assess if new insulating cells in the brain could be the key to therapeutic repair in MS.

At the University of Sydney

■ Dr Linda Ly will use new proteomics to identify the molecules involved in brain repair.

IMMUNOLOGY & VIROLOGY

James Cook University, QLD

■ Prof Alan Baxter will develop a new laboratory model of MS that mimics genetic susceptibility to infection by Epstein-Barr Virus (EBV).

At The Children's Hospital, Westmead

■ Dr Fabienne Brilot-Turville is investigating the earliest signs of brain inflammation in children who develop MS.

At the University of Queensland Centre for Clinical Research

■ Dr Judith Greer will investigate whether levels of auto-antibodies in the blood and CSF correlate with the course and progression of MS.

University of New South Wales

■ Dr Edwin Lim is interrogating a biological pathway known to regulate inflammation which may slow down MS progression.

■ Dr David Brown's research will reveal the role of immune cells in MS leading to better treatments for MS.

University of Melbourne

■ Dr Jerome Staal will investigate the role of a specific cellular deficit in MS leading to new treatments.

At Monash University

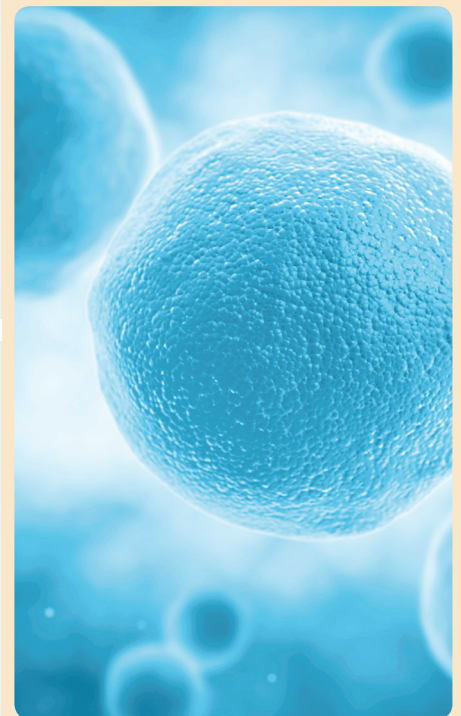
■ Jie-yu Chung, under the supervision of A/Prof Frank Alderuccio, will work on overriding the immune system to treat MS.

At Baker IDI, Melbourne

■ Ashish Nair, with Prof Peter Karlheinz, will work on a new method to diagnose early stage MS.

Monash University, VIC

■ Dr Christopher Siatskas is using regenerative approaches to re-set the immune system and reverse the neural damage caused during MS.



SOCIAL & APPLIED RESEARCH

Canberra Hospital

■ Dr Rex Simmons manages the **MS Life Study**, which is tracking the quality of life for people with MS and the economic impact of the disease. The study has a particular focus on MS and employment issues.

Monash University, VIC

■ Dr Pieter Van Dijk will examine early workforce departure in MS to improve workplace support.

Working across Australia

■ The **MSRA Clinical Trials Network** coordinates information about MS trials for the MS community.

MS Australia - ACT/NSW/VIC

■ Wendy Longley is assessing the clinical benefits of a neuropsychological assessment in MS.

At Neuroscience Research Australia

■ Prof Stephen Lord will identify the predictors of falls in people with MS, to enable better targeted interventions.