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MS
RESEARCH
AUSTRALIA

PROFESSOR JUDY WOLLIN,
WESLEY MISSION BRISBANE
AND GRIFFITH UNIVERSITY

Untreated depression may interfere with self-management and reduce quality of life

Researchers led by Professor Judy Wollin of Griffith University, Queensland, in collaboration with Dr Rex Simmons of the MS Research Australia funded Australian MS Longitudinal Study (AMSLS), have investigated the factors that influence quality of life for Australians with MS and their ability to actively manage their condition.

The research shows that while disability is an important factor, quality of life for people with MS is heavily influenced by a much broader range of factors including psychological, social and environmental conditions.

The findings have important implications for the continuum of care for Australians with MS and also support similar international findings. The results have been published in the

International Journal of Multiple Sclerosis Care.

Professor Wollin and the team used the AMSLS platform to survey 1,287 Australians with MS. Participants provided information on their physical health and disease severity and completed a range of standardised questionnaires to assess quality of life, perceived stress, self-efficacy (a person's outlook or belief in their ability to overcome challenges presented to them), depression and social support (measuring independence in day to day activities such as mobility, self-care, etc). Responses were compared from the start of the study and after two years.

Over the two year period, disability levels remained stable for 70% of the participants, however, on average, overall quality of life and well-being declined.

The researchers found that after accounting for disease severity, the major predictors for decreased quality of life were self-efficacy, depression and perceived stress scores.

The findings emphasise the need for health professionals to identify and provide strategies to address depression, stress, and positive coping mechanisms rather than only focus on addressing disability issues.

Professor Wollin stated, 'For health practitioners aiming to maximise self-management for people with MS, the first step should be to ensure that mood disorders are identified and treated appropriately. This will assist people with MS to take an active role in managing their disease and maximise quality of life.' ■

New Chief Executive Officer working towards the cure

Dr Matthew Miles has been appointed the new Chief Executive Officer of MS Research Australia. Dr Miles has extensive management experience in the medical research sector, most recently as the Director of Strategy, Development and External Relations, at the University of New South Wales School of Medicine, one of Australia's and the world's, largest university medical schools.

MS Research Australia Chairman, Mr Paul Murnane, has welcomed Dr Miles saying 'We are very happy to announce Dr Miles is the new CEO of MS Research Australia. Dr Miles has a unique combination of strong fundraising experience, government relations, and clinical knowledge of neurological and related health issues. He is a proven leader who knows the medical research sector inside out. Dr Miles will continue to build upon and develop the strong foundations of MS Research Australia and will continue to work towards finding a cure'.

Dr Miles is an Associate Fellow of the Australian Institute of Management, and a Graduate of the Australian Institute of Company Directors. He has an MBA from the Australian Graduate School of Management and a Bachelor of Veterinary Science degree from the University of Queensland. He began his career as a practicing veterinary surgeon in Australia, the UK and Singapore before becoming more involved in the university and not for profit sector. Dr Miles has particularly focused on business management, external relations and medical research.

Dr Miles said 'It is a privilege to lead MS Research Australia and have the opportunity to play a part in tackling the MS challenge. I look forward to meeting members of the MS community and working with Australia's leading researchers as we all strive towards the cure.'

'I know all too well the devastating



DR MATTHEW MILES

impact a disease like MS can have on a person, their family and loved ones. I am passionate about improving prevention and treatment of the disease and continuing the search for a cure through best practice research,' Dr Miles said. ■

Identifying targets for myelin repair

Dr Holly Cate is an up and coming young researcher who is making headway into repair mechanisms in MS. Dr Cate already has a number of impressive achievements to her name. After completing her Masters and PhD in the USA, Dr Cate moved to Australia to undertake an NHMRC Peter Doherty Fellowship – one of Australia's most prestigious medical research awards, and helped establish the MS Research group at the Florey Institute of Neuroscience and Mental Health with Professor Trevor Kilpatrick. She now runs her own research group at the Centre for Neuroscience Research,

University of Melbourne and received an MS Research Australia project grant in 2011.

Dr Cate's project investigated the role of molecular signalling in processes of myelin repair. Repair to myelin damage is a process that occurs naturally in the relapsing-remitting stages of MS, but becomes less efficient over time and its failure contributes to the progressive stages of the disease. If we were able to enhance this natural repair activity, this would provide potential therapeutic approaches for MS.

Dr Cate focused on BMP (Bone Morphogenic Protein) a protein that sends signals between cells. BMP is known to prevent myelin repair by inhibiting the production of myelin producing cells during an MS relapse. Dr Cate was interested to see if blocking the BMP signalling might increase repair in laboratory models of MS in which myelin is damaged by injection of a toxin.

She showed in this model that BMP signalling is a feature of early

lesions, and blocking the BMP signalling using an infusion resulted in more mature myelin producing cells. These cells were then able to remyelinate nerve fibres that had previously been damaged.

Dr Cate also examined the role of BMP in MS lesions in human disease. Using tissue donated by people with MS after their death, Dr Cate found that BMP signalling is active in human MS lesions. Under the microscope BMP activity was found in oligodendrocytes, the cells responsible for the myelin sheath around nerve fibres, as well as other cells found within MS lesions.

Research into myelin repair around the world is moving at fast pace and Dr Cate's work indicates that BMP is a significant piece of the puzzle. Promoting myelin repair is an important avenue for the future treatment of MS and this molecule is a promising therapeutic target. MS Research Australia is proud to support this exciting research from one of our great young researchers. ■



DR HOLLY CATE, CENTRE FOR NEUROSCIENCE RESEARCH, UNIVERSITY OF MELBOURNE



Clinical Trials target all stages of MS

The last decade, indeed the last year, has seen the introduction of several new disease-modifying drugs for people with relapsing remitting MS. As people with MS respond differently to treatments and the side-effect profiles of each medication differ, a wider range of treatment choices is a welcome development.

However, there are still no proven treatments available for people with progressive forms of MS. Treating people with MS in the very earliest stages of the disease is also a difficult area, with Australians being diagnosed with clinically isolated syndrome (the precursor to MS), generally not receiving

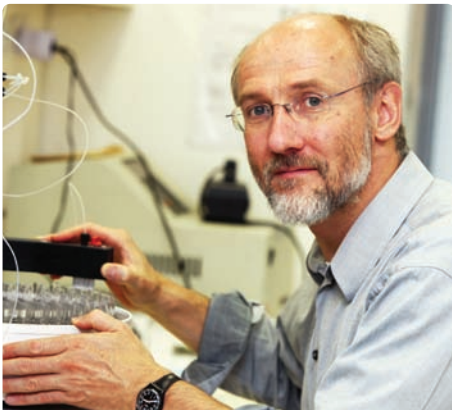
treatment until a second relapse, which results in a diagnosis of clinically definite MS. Protecting the nerves of the brain and spinal cord from damage during the inflammatory attacks of MS and also repairing the damage already done are also key priorities for people with MS and researchers alike.

There is exciting progress in all these areas and a number of clinical trials targeting everything from early treatment options, treatments to protect neurons and secondary progressive MS are currently underway at a number of sites around Australia.

MS Research Australia is particularly pleased to announce that the prepara-

tions for the much anticipated PreVANZ vitamin D MS prevention trial are now complete and the first patients have been enrolled. This trial will test whether vitamin D supplementation can prevent or delay a diagnosis of MS in people with the earliest signs of possible MS, clinically isolated syndrome.

For more information on this trial and other clinical trials for MS underway in Australia, please visit www.msclinicaltrials.org.au ■



PROFESSOR KARLHEINZ PETER, BAKER IDI
HEART AND DIABETES INSTITUTE MELBOURNE

Two new 'Incubator' grants

Two new MS Research Australia incubator grants have been awarded for projects led by Professor Karlheinz Peter and Dr Stuart Smith. Incubator grants provide seed funding for the early stages of new research efforts, with the aim of generating preliminary data needed to support future grant applications. Incubator grants are awarded throughout the year with a value up to \$25,000.

Professor Peter from the Baker IDI Heart & Diabetes Institute in Melbourne received an MS Research Australia Incubator grant in April. Professor Peter and his team will work on a project that aims to determine the role of platelets in the early stages of MS. It is known that platelets can be involved in inflammation, although their role in MS is not yet known. The researchers will use novel chemicals, specifically targeted to activated platelets, that show up in MRI or PET scans. This may enable tracking of inflammatory reactions that contribute to MS lesion

development. They aim to evaluate whether these new imaging chemicals will allow an early diagnosis of MS, which in turn could lead to earlier treatment interventions.

Dr Smith received an MS Research Australia Incubator grant in July and will be working on profiling the gut bacteria of people with MS. Dr Smith specialises in food science and nutrition at Deakin University, Victoria. Bacteria in the human intestine perform many essential tasks fundamental to health and are heavily involved in maintaining a healthy immune system. The intestinal bacterial population, known as microbiota, can vary according to a number of factors including diet and genetics. It has been shown to differ between healthy people and individuals with many conditions, and Dr Smith will use his incubator funding to examine microbiota in people with MS. This project has the potential to provide insights into disease mechanisms of MS and provide new treatment targets. ■



DR STUART SMITH, DEAKIN UNIVERSITY,
VICTORIA



MSRA Brain Bank – How you can help

The MS Research Australia Brain Bank has been running since 2008 to raise awareness of the importance of human tissue for MS research and register the consent of people with MS who would like to donate their brain and spinal cord for use in research. With your generosity and support, consent for brain donation has been obtained for over 770 people with MS.

Many more than this number have expressed an interest in donation, but are yet to complete the legal forms required. It is important that once you have made the decision to become a brain donor that you make sure all paperwork is completed. Without consent, donation may not be able to proceed.

It is also important to discuss your decision with family members, since they will be the ones enacting your wishes. Family members are welcome to contact the MS Research Australia Brain Bank if they have any questions about the importance and practicalities of brain donation for research. More information can also be found on our website www.msbrainbank.org.au

Once people have consented to becoming brain donors it is important to keep consent paperwork and donor cards safe. It is often useful to inform doctors, neurologists and other carers of your decision and the process of brain donation. This will allow the donation to proceed as smoothly as possible and provide the best possible outcomes for research.

If you wish to register as a brain and tissue donor please phone **1300 672 265**, email msrabrainbank@msra.org.au or register online at www.msbrainbank.org.au to receive your consent pack. ■



Leave a bequest to MS Research

It's a common misconception that only very wealthy people leave money to charity when they die. The reality is that most bequests are made by ordinary, hardworking people who want to make a positive difference to causes they care about after they're gone.

However large or small, a bequest to MS Research Australia will make a difference. It will allow Australia's leading MS researchers to focus their attention on finding the cause and cure for MS. Medical research is moving rapidly and each new discovery takes us closer to a world free of MS.

During the week of 16 – 23 September, MS Research Australia, the Include a Charity campaign and 140 other charities across Australia will be actively promoting the value of a bequest to society as well as remembering their loved ones.

If you would like more details about leaving a bequest to MS Research Australia, please call **1300 356 467** or visit www.msra.org.au/bequest. ■

Retiring Finance Manager

MS Research Australia would like to thank and acknowledge the tireless efforts of Richard Trimble, who recently retired as Finance Manager.



Richard began working with MS Research Australia when we were in our early foundation stages. His dedication and professionalism have played a significant part in creating the organisation MS Research Australia is today.

On his retirement, Richard plans to enjoy more golf and travelling adventures. MS Research Australia and the Board would like to sincerely wish Richard and his wife Margaret all the best for the future. ■



Gold Medal awards and \$32,000 from City 2 Surf

It was smiles all round with perfect conditions assisting so many of our fundraising runners to achieve their personal best on the 14km journey to the surf at Bondi Beach. F5m+ is delighted to have raised \$32,000 from our supporters who travelled from across the country to be involved in this iconic event. F5m+ wants to thank everybody for their tremendous support to make this event a highlight of our year. In the photos above, (left to right) Dr Matthew Miles presents a gold medal to Canberra based Laura Hill who contributed \$12,300 as top individual fundraiser, Laura Sutton and her beau Dylan close in on the finish line and our very own Research Manager, Dr Lisa Melton, jubilant after the race. ■

Shop online and support MS Research



The next time you shop online a percentage of your purchase could benefit MS research, at no additional cost to you.

All you have to do is visit www.spend-well.com and locate MS Research Australia/F5m+ in the list of charities, register your email address and go shopping. No membership or annual fee required. Spend-Well will ask for your email address so they can email you an update on how much was donated to F5m+ from your purchase, however if you prefer not to give it just click the 'Go Shopping' button.

Spend-Well has partnered with many Australian and world famous retail outlets like Amazon, iTunes, Marks & Spencer, Big W, Expedia and many more. Each retailer pays a commission on your purchase to Spend-Well ranging from 1.5% to 26%, this is taken from the advertised price, not added to your purchase price and then distributed to F5m+.

Shopping and supporting MS research at the same time, what a wonderful shopping experience. ■



DR EMERY (2ND FROM RIGHT)
AND HIS RESEARCH TEAM

Strength in numbers

F5m+ continues to grow and we are pleased with the formation of groups in both Melbourne and Canberra. Both of these groups now join Sydney in hosting a monthly meeting where like-minded individuals gather to discuss ideas of how to contribute towards F5m+'s mission to find the cure for MS.

Recently, two of Australia's top MS researchers, Dr Ben Emery (pictured with his team) and Dr Scott Byrne, took time out of their busy schedules to attend the F5m+ meetings and provide an update on their projects, which have been funded by F5m+. What a fantastic way to combine the two key elements of F5m+ – our fundraisers, many living with MS, and the researchers who will one day unlock the mystery of this disease.

We invite you to join one of these groups or even consider creating a new group in your state. To find out more email info@f5m.org.au ■

Upcoming Events

- **1 Sept** – Sunday Mail Suncorp Bridge to Brisbane
- **8 Sept** – Canberra Times Fun Run, Canberra
- **15 Sept** – Sunday Mail City-Bay, Adelaide

- **21 Sept** – The Trish MS Research Ball, Sydney
- **22 Sept** – Blackmores Sydney Running Festival
- **13 Oct** – Medibank Melbourne Marathon Festival
- **17 Nov** – City2Sea, Melbourne

Prestigious 2014 Academy Medal awarded



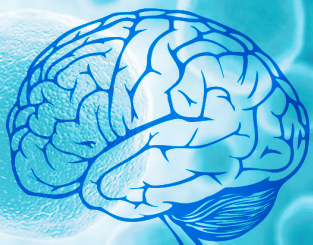
SIMON MCKEON
AO

MS Research Australia is delighted to announce that our Patron, Simon McKeon AO, has been awarded the 2014 Academy Medal by the

Australian Academy of Science. The Medal recognises outstanding contributions to science, by means other than the conduct of scientific research. Only seven people have received this prestigious award to date.

'Mr McKeon's extensive contributions to science and innovation, including chairing the 2013 Strategic Review of Health and Medical Research, leadership of the CSIRO Board since 2010, being Foundation Chairman, and now Patron, of MS Research Australia, and membership of the inaugural Bio21 Australia Board, make him a very worthy recipient of the Academy Medal,' said President of the Academy, Professor Suzanne Cory. ■

Progress in MS Research Public Lecture



Hear from worldwide experts on the latest findings in MS research, including an overview of presentations from the 2013 Progress in MS Research Scientific Conference.

Date: Saturday 16th November 2013

Time: 9.30 am – 12 noon

Venue: Kerry Packer Education Centre – Royal Prince Alfred Hospital, Johns Hopkins Drive, (off Missenden Road), Camperdown, Sydney NSW.

This public lecture is FREE of charge, however registration is required to secure your seat. Register online www.msra.org.au/public-lecture

Program:

- Latest news and developments from the Progress in MS Research scientific conference – Dr Lisa Melton, MS Research Australia
- Biomarkers for progression and repair in MS: the key to developing treatments for progressive forms of MS – Dr Sharmilee Gnanapavan, Neuroscience centre, Barts and The London School of Medicine and Dentistry, London, UK
- MS Treatments in Australia: old, new and emerging and how can we better treat the symptoms of MS – Professor Simon Broadley, Head of School, School of Medicine and Professor in Neurology, Griffith University, Gold Coast ■

Partners



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