

Nerve fibre damage in MS may be slowed

An Australian team of scientists, who received funding from MS Research Australia, made headlines recently after their research paper was published in the prestigious science journal, 'Brain'.

The paper, by Dr Steven Petratos of Monash University, with local and international collaborators, showed that a modified version of a specific protein is present in active MS lesions in a laboratory model of MS. This modified protein then interacts with another protein to cause nerve fibre damage. When the scientists blocked either the modification or the interaction between the two proteins, the disease progression was halted.

'Blocking this same protein in people with MS could provide a 'hand brake' to the progression of the disease' said Professor Richard Boyd, Director of the Monash University Immunology and Stem Cell Laboratories. His colleague, Dr Petratos, said that the particular method used to form the block has already been approved in the US and Australia for the treatment of other disease conditions. 'This should mean that clinical trials for MS might be fast tracked as the procedures have already been approved,' he said.

The research was done in collaboration with scientists from the University of Toronto, Canada and Yale University in the US,



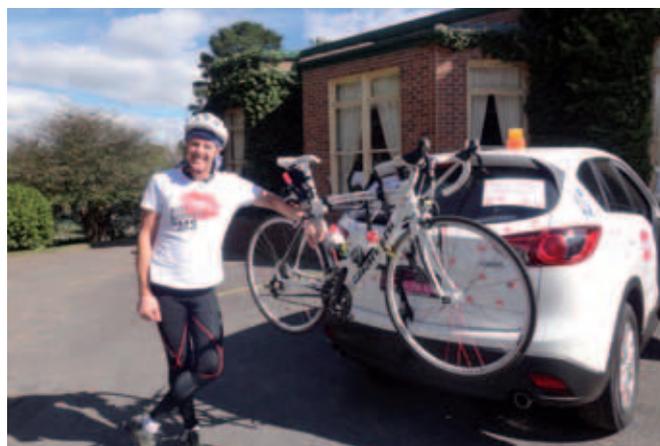
DR STEVEN PETRATOS INTERVIEWED ON ABC TV NEWS. THE STORY WAS ALSO REPORTED, ON 10 NEWS, 7 NEWS, ABC NEWS 24, 'PM', ABC RN DRIVE, HERALD SUN AND MORE.

with major funding from the National Multiple Sclerosis Society of the United States of America and partial funding from MS Research Australia. 'There is still more work to be done before clinical trials can start, but this is a great step forward in providing better treatments for MS and hope for people with the disease,' said Jeremy Wright, CEO of MSRA. ■

What a Dare!

John Walker dared himself to undertake an epic adventure in the recent *Kiss Goodbye to MS* campaign, his mission was to raise funds for vital research into multiple sclerosis (MS). His journey took him over 1,900km from Manly in Sydney to Broken Hill.

John rode solo the whole way with his wife Mary driving the support vehicle. John said: 'We are so very, very fortunate to live in this rich & prosperous country – a home we call Australia. Life has been good to me and my family and I wish to give as much as possible to those that are less fortunate than myself. Kiss Goodbye to MS is a really good cause and I am mighty well determined to achieve my goal, no matter what the obstacle.'



■ JOHN WALKER.

To read about the Kiss Goodbye to MS campaign launch please go to page 4 or to read about the many other Dares that took place in May please visit www.kissgoodbyetoms.org ■

UK Meeting showcases MSRA report

Leaders and members of MS organisations from around the world met in Manchester, UK, in April for the Board and Committee meetings of the MS International Federation (MSIF).

MSIF aims to increase awareness of the disease and to improve the circumstances of people with MS, no matter where in the world they are.

MS Research Australia was invited to join the meeting in April to share our experiences in compiling and using the Report on the Economic Impact of MS in Australia which was completed last year. Dr Lisa Melton, MSRA Research Development Manager, travelled to the UK and spoke to international colleagues about the compelling data that reveals the full extent of costs faced by people with MS. In particular, she addressed the substantial burden to individuals and the community of lost employment opportunities. The report is a valuable tool for advocacy and the common themes and potential impact of conducting similar studies in other countries was vigorously and enthusiastically discussed at the meeting.

Also discussed were the exciting international research collaborations supported by MSIF. The global MS movement has chosen to focus on three research areas that will truly benefit from a world-wide pooling of expertise and numbers – paediatric MS, progressive MS and stem cell research. With increasing options now available to control the unpredictable relapses of MS, the research community is turning their full focus on the much more complex task of



(L TO R) PEER BANEKE, CEO MSIF, YVES SAVOIE, CEO MS SOCIETY OF CANADA AND CHAIR MSIF CEO ADVISORY GROUP AND DR LISA MELTON, RESEARCH DEVELOPMENT MANAGER, MSRA, AT THE MS LIFE CIVIC RECEPTION.

halting the progression of disability still faced by so many. The international collaboration has identified the key barriers that are currently impeding the development of therapies for progressive MS. It has established five working groups to overcome these barriers.

The MSIF meeting in Manchester also coincided with MS Life, the UK MS Society's comprehensive, weekend-long event for people with MS. The expo encompassed research and lifestyle talks and advice and guidance on living with MS. And here progressive MS was also a major focus of attention. The event provided a valuable opportunity for Dr Melton to meet UK researchers, learn from her counterparts in the UK MS Society and compare notes on areas of common priorities.

Dr Melton also had the great pleasure of meeting with the inspiring Graham and Margaret Bryce, founding members of Foundation 5 Million. Graham and Margaret returned to live in the UK several years ago after many years living in sunny Sydney. The distance has not diminished their tireless support of MSRA and they have embraced the Kiss Goodbye to MS campaign.

'It has been a great privilege and very beneficial to be able to take part in these meetings and make such important connections,' said Dr Melton, 'Sharing knowledge and experiences, further strengthens Australia's ability to contribute to the global effort to beat MS.' ■

Clinical trials for both early signs and progressive MS

The PreVANZ trial of vitamin D for the prevention of MS will begin recruiting in August this year. This trial will test whether high dose vitamin D supplementation can prevent a second relapse and therefore a diagnosis of MS in people presenting with a first episode of MS-like symptoms.

People who have already received a diagnosis of MS will not be eligible for this trial. However, if you or someone you know, has very recently experienced first symptoms suggestive of MS, please discuss eligibility with a neurologist.

Another welcome development in international clinical MS research is the increase in trials for primary and secondary progressive MS. Experimental treatments that are currently in the pipeline for relapsing remitting MS are now also being tested in progressive MS, with some of these trials also including sites in Australia.

Visit www.msclinicaltrials.org.au for more information. ■



Young researcher explains proteomics

Australian researcher, Laura Dagley (née Gianni) will be returning to Australia after working in a world-class proteomics laboratory in Canada with Prof Andrew Emili at the University of Toronto.

Currently a recipient of an MS Research Australia scholarship, the high standard of her work also attracted further funding from the MS Society of Canada. This international laboratory experience can only enhance the quality of data that Laura will obtain as she completes her PhD under the supervision of A/Prof Anthony Purcell at the University of Melbourne.

Laura's field of research is 'proteomics', which examines proteins present within tissue, more specifically she will continue to identify proteins present within the brains of people with MS.

The first stage of her project looked at the proteins that make up myelin in different regions of the brain and spinal cord in a healthy mouse. Using a new technique available at Prof Emili's laboratory, she identified over 1000 new proteins within the myelin. It is thought some of these proteins may play a role in myelin maintenance and repair.

Laura then moved on to narrow down which of these proteins were altered in a mouse with an experimental version of MS. She identified over 280 proteins which were present at different levels in the diseased brain compared to healthy brain. An examination of blood cells also revealed almost 60 proteins with differing levels in the disease state.

Now, in the final phase of her scholarship, Laura will investigate how these findings reflect the disease course of people with MS. 'It is hoped that new proteins mediating the disease process will be identified and validated in human MS tissue. This might provide useful biomarkers for early diagnosis of MS, monitoring disease progression and assessing therapeutic outcomes,' she said. ■



■ LAURA DAGLEY.

Seeing similarities – MS and optic neuritis

In 2011 Prof Stuart Graham was awarded an incubator grant by MS Research Australia to examine the relationship between optic neuritis (ON) lesions and the effect on nerve function. Incubator grants provide short term funding to allow researchers to gather preliminary data and test their ideas, before applying for more substantial funding.

Prof Graham is a highly respected ophthalmologist who in 2008 was appointed Professor of Ophthalmology and Visual Science, at the Australian School of Advanced Medicine within Macquarie University. He is also head of the Ophthalmology Clinical Unit at Macquarie University Hospital.

ON is a condition that causes visual loss and occurs as a common feature of MS. Some 40-75% of ON patients have been reported to eventually develop MS. And the presence of typical magnetic resonance imaging (MRI) lesions in the brain seem a strong risk factor. ON is often used as a model for studying the mechanisms of axonal loss and de/remyelination in MS. In contrast to most brain lesions, the effects of MS

lesions on the optic nerve are clinically apparent and potentially measurable. This presents an opportunity to examine the processes of myelin destruction, repair and possible axonal degeneration.

In this project, Prof Graham established a laboratory model of ON and examined lesions in the visual pathway using visual evoked potentials (VEPs). VEPs measure the time it takes for a visual stimulus to travel from the eye to the part of the brain which processes vision. When the myelin sheath is damaged, the VEP gets longer. Prof Graham was able to measure both the level of demyelination and amount of damage to the nerve fibres in the visual pathway using VEPs.

Prof Graham has shared his findings with international colleagues through several conference presentations and scientific publications. 'These findings are very useful for clinical assessment of ON and for prognosis,' said Prof Graham. ■



■ PROF STUART GRAHAM.



CLOCKWISE FROM LEFT: NATALIE BARR FROM CHANNEL 7'S SUNRISE, MARK BERETTA, VOLUNTEERS UNDER OUR FABULOUS 'KISS GOODBYE TO MS' BANNERS', LAUNCH EVENT PRESENTERS, SYDNEY FIRE FIGHTERS KISSING GOODBYE.

Pucker up on the streets



Never have so many kisses been seen in the streets of Sydney and Melbourne. Federation Square and Martin Place became hotspots for luscious lips and intriguing looks.

Event-goers in Melbourne were treated to an appearance by comedian Tim Ferguson who entertained the crowd along with Georgia Sinclair, who did a fantastic job as MC. The launch was also boosted by the presence of 2011 Australian of the Year Simon McKeon.

Meanwhile in Sydney, Sunrise Sports presenter Mark Beretta was a most excellent MC, and was accompanied by musician Jim Conway and NSW Health Minister, Jillian Skinner. The rest of the Sunrise team filmed a terrific piece

about the event, flanked by an army of supporters.

Local fire crews added some muscle to the events, and their cheeks were quickly covered in lipstick marks that were most definitely fire engine red. This was helped by the team at Elizabeth Arden who were on hand to provide lipstick and show everyone how to look their best in red.

Themed merchandise was being snapped up left, right and center with the Kiss umbrellas being a particular success. This was helped by the gorgeous Virgin cabin crew who kindly gave up their time to join the fundraising effort.

MSRA would like to thank everyone who came down to the launches, and a special thank you to the team who made it all happen on the day and in the lead-up. ■



CLOCKWISE FROM LEFT: GEORGIA SINCLAIR AND TIM FERGUSON, KISS GOODBYE MARQUEE AND CROWD, MERCHANDISE DISPLAY, SIMON MCKEON AND TIM FERGUSON.

On the road to a cure

After being diagnosed with MS in 2003, Mike Hemingway's only interaction with the MS community was through his neurologist.

This all changed as a result of his children attending the same primary school as Ian Ballard's. The two men got to know each other, so when Ian conceived the idea for Foundation 5 Million (F5m), Mike was one of the first people he contacted.

Since then, Mike has embraced the MS community, playing an active role in seeing F5m reach its initial \$5 million fundraising target, and pushing it towards its next goal: 'We won't stop until we find a cure,' he said. Mike meets with fellow F5m+ committee members once a month to brainstorm, review previous events and discuss upcoming events. He is also a member of the Sub-Committee which meets to decide which research projects to allocate their hard earned funds to. MSRA's Research Management Council conducts a thorough 'peer review' of applications from the scientific community, then prepares a shortlist for F5m+ to consider. 'We look for projects specifically looking at a cure,' he explained, 'and preventative trials, so we can help people before the onset of symptoms.'

Mike learned the key to inspiring others to donate: 'If you're gonna do something like a long walk, you want people to say 'you're an idiot!' If they don't believe you can do it, they're more likely to sponsor you.' Mike and his wife Katrina should know. They organised the Mudjee to Sydney walk (M2S) in 2010, which raised over \$150,000. Katrina and four girlfriends completed the entire 11 day walk of around 270km, and they were joined by around 200 others who joined for various periods of the journey.



MIKE HEMINGWAY.

Mike is extremely proud of the hundreds of activities that have taken place within the F5m+ family, no matter what size the event. 'Every dollar has the same value, no matter where it comes from. Spreading the word is as valuable as anything.'

Mike Hemingway and all F5m+ members can certainly say they have played a role in the future of MS. He has found his experience with F5m+ to be empowering: 'It feels like we've got MS on the run, like we have control over something we can't normally control in our daily lives.' He's also been energised by the positivity and motivation of the F5m+ community, saying 'if there's a silver lining to having MS, it's the people you meet.' ■

The Trish Ball, 'Kiss Goodbye to MS'



Where: Grand Ballroom, Hilton Sydney
When: 15th September 2012, 6.30pm
Entertainment: Jack Vidgen, winner Australia's Got Talent

Visit www.trishmsresearch.org.au or call 0410 410491

MS BALL 2012

MAKE A STATEMENT IN CRIMSON
PENINSULA AT DOCKLANDS MELBOURNE
20 OCTOBER 2012

www.charityworksforms.org.au

Ourimbah Music festival

A/Prof Rob Heard, a MS researcher, has once again hosted a fabulous live music showcase raising \$11,000. After the success of OMF2010 and OMF2012, there will definitely be an OMF2014. Let's spread the word!



Upcoming Events

30 JUNE – 1 JULY **Gold Coast Marathon**
15 JULY **Run Melbourne**
12 AUGUST **City To Surf, Sydney**
02 SEPTEMBER **Bridge 2 Brisbane**
16 SEPTEMBER **City-Bay Adelaide**
16 SEPTEMBER **Sydney Running Festival**

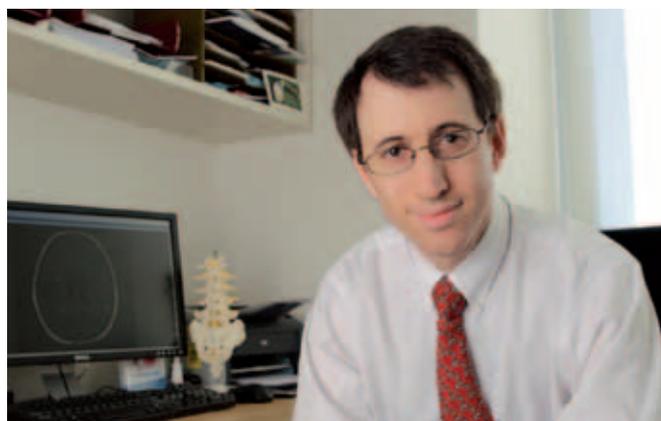
For more information visit www.F5mplus.org.au
or call 1300 356 467

New head for Brain Bank

One of Australia's leading MS clinicians and researchers, Dr Michael Barnett, was recently appointed as the new Director of the MS Brain Bank. He is a staff neurologist at Royal Prince Alfred Hospital and Senior Lecturer in Neurology at the University of Sydney. He has also been appointed to the MS Society Clinic at the Brain and Mind Research Institute (BMRI).

Since the inception of the MS Brain Bank, Dr Barnett has provided his MS neuropathology expertise to the Brain Bank in his role as Advisor, so will be well suited to the task of shaping the future of this important facility.

In other positive news for the Brain Bank, the NSW Office for Medical Research has recently renewed funding. This further funding will supply half a million dollars for an additional four years, allowing the Brain Bank to continue its growth and securing future access to MS affected tissue for Australian



DR MICHAEL BARNETT.

researchers. This vital resource offers researchers a direct window into the MS brain.

'The grant from the NSW Government ensures researchers can utilise advanced technologies and directly target new treatments,' said the Minister for Health and Minister for Medical Research, Jillian Skinner. 'We are pleased to be able to provide the grant for this important research.'

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

MSRA Partners



Yes, I want to help MS Research Australia

Mail this form or donate online www.msra.org.au Donations over \$2 are tax deductible

- My one off tax deductible donation is \$ _____
- I want to support MSRA on an ongoing basis.
Please charge \$ _____ to my credit card per month until notified.
- Please debit my: Visa Card Mastercard Amex
- Card No: _____
- Exp: ____ / ____ Signature: _____
- OR I have enclosed my: Cheque/Money Order payable to MS Research Australia.

Title: _____ First Name: _____ Surname: _____

Address: _____

Suburb: _____ Postcode: _____

Telephone (W): _____ (H): _____

Email: _____

- Please note here if your donation is made in memory of someone or for a function.
name of person / function name:

- Please send me information on how I may support MSRA in my Will.
- Check this box if you do not wish to receive future updates from MSRA



ABN 34 008 581 431

Multiple Sclerosis Research Australia PO Box 1246 Chatswood NSW 2057 Australia
Ph: 02 9468 8390 | Local Call: 1300 356 467 | E-mail: info@msra.org.au | Web: www.msra.org.au
Facebook: <https://www.facebook.com/MSResearchAustralia> | Twitter: <http://twitter.com/#!/MSResearchAust>