

Record research year

In a record year for research into understanding Multiple Sclerosis, MS Research Australia (MSRA) has announced eight new scholarships and fellowships in 2007.

'This doubles the number of research scholars and fellows in MS research. And we anticipate it will accelerate results as well as strengthen Australia's role in this field,' said Jeremy Wright, Executive Director of MSRA.

This year's record number of grants includes three fully funded by the National Health and Medical Research Council (NHMRC), added to the two NHMRC/MSRA jointly funded Betty Cuthbert Fellowships. Others are sponsored by the Association of Financial Advisers (AFA), Macquarie Bank Foundation and the Trish MS Research Foundation.

The Scholars and their funding bodies

The AFA's inaugural scholarship is for Scott Kolbe's work at the Howard Florey Institute, Melbourne University. This will develop quantifiable magnetic resonance imaging markers for degenerative and regenerative processes in optic neuritis.

Bill Haywood, former national vice-president of the AFA, explained the impetus: 'We often work with families, planning financial solutions to ill-health. This gave us the idea to put something back into the community. We're absolutely delighted that our first effort to raise money for MSRA provided enough to fund significant research.'

Another post-graduate scholarship recipient, Brett Drummond, has a degree in biomedical science (Hons.) from the University of Melbourne. Thanks to an inaugural Macquarie Bank Foundation MS scholarship, he can now continue his work on what triggers the immune system to attack the myelin which insulates nerve fibres.



► SCOTT KOLBE AND BILL HAYWOOD FROM THE ASSOCIATION OF FINANCIAL ADVISERS.

'I'm focusing on the change which affects the myelin and makes the immune system see the changed myelin as 'foreign' and therefore attacks it,' said Brett.

The Trish MS Research Foundation Scholarship was awarded to Biological Sciences (Hons) graduate, Natalie Payne. It enables her to investigate stimulation of the innate immune system and its role in generating central nervous system auto-immune inflammation. Natalie will work at the Monash Immunology and Stem Cell Laboratories (MISCL), as part of Professor Claude Bernard's neuroimmunology research group.

'I hope my research will help to develop new strategies for treating MS,' she said.

Betty Cuthbert Fellowships

Dr Tobias Merson received one of two Betty Cuthbert Post-doctoral Fellowships (jointly funded by the NHMRC and via MSRA). His work at Howard Florey Institute (University of Melbourne) will examine the genes involved in co-ordinating cellular repair of the demyelinated central nervous system. His aim is to develop a better model of demyelination that reflects the early pathology seen in MS in order to identify the mechanisms that underpin repair.

The other Betty Cuthbert Fellowship was awarded to Dr Junhua Xiao at the University of Melbourne for work on the role



► BRETT DRUMMOND AND SIMON MCKEON FROM MACQUARIE BANK.

► CONTINUED ON PAGE 2



Scholarships and Fellowships awarded for MS Research

▶ CONTINUED FROM PAGE 1

and cellular mechanisms of neurotrophins in modulating myelination. *This fellowship is also called the Hunt Family Foundation Fellowship.

NHMRC Awards

Through an NHMRC Fellowship, Dr Ingrid Van der Mei is doing post-doctoral work on gene and environment interaction in both MS progression and risk. Epidemiological evidence indicates that infection with the Epstein–Barr virus (EBV) – the causative agent of glandular fever – has a role in Multiple Sclerosis (MS).

NHMRC has also supported a post-doctoral fellowship for Dr Sue Liu working at the Garvan Institute (University of NSW) on the role of TIM protein signalling in the generation and effector function of encephalitogenic T-cells, in animal models of MS.

Another NHMRC post-graduate scholarship went to Dr Jing Shan Wu whose study, ‘Multiple sclerosis – from genotype to phenotype’ will be conducted at the Australian Neuromuscular Research Institute in Western Australia.

Watch this space ... for the announcement of future developments as a result of these new research grants – and for announcements of new grants. Researchers are always invited to submit applications for work to be supported. Contact MSRA for information on this expanding research program www.msra.org.au



▶ DR TOBIAS MERSON

This bank invests in the future of MS!

There are many questions Dr Peter Patrikios has about MS and he feels that many answers lie in tissue that will be generously donated to the new MS Brain Bank.

As the first Director of this facility, he and other researchers will have access to brain tissue from old and new donors which will further advance knowledge of this disease and many others.

The MS Brain Bank is now located at the University of Sydney’s Neurology department and when Dr Patrikios spoke to Next in early 2007, he had not officially started work. However, he had already been talking to institutions and individuals about acquiring collections of brain tissue and was optimistic about the improved methods of storing and analysing these samples.

‘State-of-the-art equipment, the latest confocal laser scanning microscopy, for example, allow for much more detailed studies in MS neurology,’ said Dr Patrikios who has been using the technique in his doctorate research in Europe. ‘And new tissue will be stored using more modern techniques so that we can apply the latest research methods to the best quality tissue.’

He aims for collaborative research based on sharing information through the MS Brain Bank, which he hopes will also collect spinal cord, optic nerves and hair and blood samples for MS research.

Dr Patrikios is particularly excited about two current, though very different, theories about how multiple sclerosis develops in the brain. It is especially interesting that these two theories are held by two world-renowned neurologists* one of whom he has been fortunate enough to work with in Vienna and the other he will work with in Sydney.



▶ DR PETER PATRIKIOS, FIRST DIRECTOR OF MS BRAIN BANK

‘We’ve had offers of brain tissue from pre-existing collections around Australia. This is an enormous boost to the Brain Bank, especially considering that the National Neural Tissue Resource Centre, Melbourne, has only two specimens of brains with MS.’

Not surprisingly, he believes these are ‘very interesting times’ in MS neurology. His doctorate work in Vienna was on human MS neuropathology and he is the only person in Australia who has worked with Prof Hans Lassmann (see below).

‘I’ve learned different skills in Vienna which I hope to apply here and I’ll have a different perspective on the pathology of the disease,’ he said.

Dr Patrikios is also establishing an advisory committee which so far includes the Bushell Professor of Neurology at University of Sydney, John Pollard, Dr Bill Carroll from the University of WA Neurology Department and MSRA Executive Director Jeremy Wright.

* Professor Hans Lassmann is from the University of Vienna (with whom Dr Patrikios has been working for the past three years) and Professor John Prineas is from Sydney University.

To briefly summarise their theories; Professor Lassmann has classified the brain pathology of MS into four subtypes, each said to be due to different processes and therefore fundamentally different diseases. Professor Prineas has postulated that MS pathology is caused by the same sort of initial lesion, namely, one involving the death of the cells that form myelin, the oligodendrocytes. Further research is needed to clarify these issues of profound importance.

Singing, trivia, eating ... F5m shakes up fundraising

Foundation 5 Million (F5m) is people with MS plus their families, friends and supporters who do fundraising for MS research. If you wish to take part in their activities around the country, or organise your own event, visit www.F5m.org.au



REBECCA HOY.

June is F5m Trivia Night Month

Start getting your trivia night ready as this June has been set aside as THE month to hold trivia nights around the country. The aim is to see if we can all get as many people as possible involved. The F5m team will make it as easy for you by putting 'tips for a successful trivia night' and sample trivia questions on the website www.F5m.org.au. Everyone will be sure to have fun while raising funds at the same time for MS research. 'Complete Trivia' is helping us out on this – we thank them for their support.

All you have to do is organise a whole lot friends and then select your questions. 'What's the name of the youngest Simpson...?'

Introducing 'the MS elves'

With the best name in show business, theMSelves (people with MS and friends) performed at different venues in Sydney spreading

Christmas cheer and raising awareness about MS and F5m. Organiser Graham Bryce did a great job and hopes next year to roll out the 'franchise' around Australia...do, re, mi, fa, so...!

► 'SUNRISE' PRESENTERS MELISSA DOYLE AND MARK BERETTA JOINED WITH THE MS ELVES.



U2 and MS

U2 and MS ... another F5m opportunity was offered by organisers of the U2 concert (thanks to Graeme Burns) – again volunteers shook buckets to collect change (\$4480) from happy fans as they entered the stadium.



► F5M BONO WANNABEES.

Fish 'n F5m

Last December, the F5m Action Team put on their aprons and cooked up a storm to feed Sydney's hungry lunchtime mass at Wynyard in the city's CBD.

'Tasmanian Salmon approached us with a great offer – you coordinate some volunteers to serve up the tasty red fish, and we'll give you 100 percent of the profits!' said Neil Robertson of F5m.

So once the busy lunch hour bustle had died down, a tidy sum of \$3,700 was donated to MSRA. It was considered such a success that it was offered again at Bondi Beach which raised close to \$2,000.



► F5M TEAM IN ACTION AT BONDI.

One Million Dollar Website

One of the F5m Action Team members, Allison Reynolds, came to one of our meetings and said 'I've got a way I think I can raise \$1 million for F5m.' Allison has developed a website with the specific goal of doing just that for MS research. As she works in the internet world all the time, her worldwide contacts in the web community will be assisting her cause in reaching the magic million. You can get into it too. Allison has included all kinds of interesting items on the website so check it out at www.netxperiment.com

FOR INFORMATION ON ALL F5m events, call Neil Robertson on 1300 356 467 or visit www.F5m.org.au

Stem cell update – what it means for research

The Senate voted in November to pass former Health Minister and Liberal Senator Kay Patterson’s stem cell research bill which expands stem cell research according to the recommendations of the committee chaired by the late Justice John Lockhart.

No less than 3 Senators mentioned MS in their speeches supporting the bill, with Senator McLucas from Queensland mentioning one of MSRA’s prominent supporters:

From Hansard: *“Recently, MS Australia held an information evening in the parliament, where a young woman by the name of Sarah Ross-Smith, who has multiple sclerosis, spoke. She was not speaking about the potential of cures derived from embryonic stem cells, but rather, more broadly about the goal of MS Australia to find a cure. She spoke eloquently and passionately about the fact that, for her, the hope that a cure will be found is her motivation to keep going in the face of what she knows will be a difficult journey for her and her family. Hope is her incentive to continue to go to work, to manage her treatment and to speak on behalf of MS Australia to encourage the much-needed funds to conduct the research that is required.”*

Many supporters and scientists believe the bill’s passage will advance Australian medical research into diseases such as MS, Type 1 diabetes, heart disease, motor neurone disease and late onset diseases such as Parkinson’s and Alzheimer’s.

The bill expands research by allowing licensed scientists, who currently use surplus IVF embryos, to now grow them for up to two weeks before extracting stem cells for research. The

stem cells can form all types of human cells in a technique called therapeutic cloning or somatic cell nuclear transfer.

Scientists believe that new embryonic stem cell lines produced by somatic cell nuclear transfer from patients with diseases such as MS, Parkinson and Alzheimer’s will help determine the cause and derive new strategies to prevent, hold and/or reverse these diseases. It is likely that new drugs and cell-based strategies for therapy will be discovered using such cell lines.

In the House of Representatives both the Prime Minister John Howard and Opposition leader Kevin Rudd voted against the legislation to expand stem cell research. However, the Hon Brendan Nelson, mentioning MS, voted for the legislation.

Next readers will recall from our August issue that the cell type for myelin - which protects the coating of nerve cells which becomes damaged in MS – can be developed from stem cells.

Professor Claude Bernard of the Monash Immunology Stem Cell Laboratories is using bone marrow stem cells and monitoring them with markers to see if they are remyelinating damaged nerve cells. He is also assessing whether the injected stem cells can develop into brain cells.

MSRA Partners



MSRA Multiple Sclerosis Research Australia

The Campaign Coordinator
PO Box 1246
Chatswood NSW 2057
Australia

Ph: 612 / 02 9411 7811
Local Call: 1300 356 467
E-mail: info@msra.org.au
Web: www.msra.org.au

Yes, I want to help MS Research Australia

My tax deductible donation is \$ _____

Please debit my: Visa Card Mastercard Amex Diners Club

Card No: _____ Exp: ____ / ____

Signature: _____

OR I have enclosed my: Cheque/Money Order payable to MS Research Australia.

I want to support MS Research Australia on an ongoing basis, please charge \$ _____ to my credit card per month until notified.



To donate now go to www.msra.org.au Donations over \$2 are tax deductible

Title: _____ First Name: _____ Surname: _____

Address: _____

Postcode: _____

Telephone (W): _____ (H): _____

Email: _____ Please send me information on how I may support the MSRA in my Will.