

Brain Foundation 40th Anniversary

Welcome to the 40th Anniversary Edition of our newsletter – Brainwaves – and to the celebration of 40 years of the Brain Foundation.

This is a time for celebration, as the Brain Foundation is one of the longest surviving charities in Australia, and also for reflection on the origins of how the Brain Foundation was conceived.

The Australian Neurological Foundation – later to become the Brain Foundation – was the brainchild of a group of progressive neurologists and neurosurgeons in 1970. The inaugural meeting was held on 16th May, 1970 in Canberra, under the patronage of former Governor General

The Rt Hon Lord Casey of Berwick KG, GCMG, CH, DSO, MC, KStJ, PC. Directors of the new foundation were members of the Australian Association of Neurologists which was later to become the current day Australian and New Zealand Association of Neurologists (ANZAN). The founding directors were Professor Keith Bradley, Dr John Game, Dr Byron Kakulas, Prof James Lance, Dr Barrie Morley, Dr E. Graeme Robertson, Dr George Selby and Prof Sir Sydney Sunderland.

The fundamental basis for the creation of the Brain Foundation was the lack of para- clinical scientists and scientific facilities conducting research into diseases and disorders that the

neurologists and neurosurgeons were treating every day. Treating patients whilst simultaneously endeavouring to conduct research required support. State surveys at the time revealed deficiencies in all existing facilities available for the progression of scientific knowledge and research into the causes of disease and techniques for the treatment of patients.

Delegates to the ANZAN Conference that was recently held at the MCG, received a special presentation by Professor Jim Lance AO CBE, a founding director, about the challenges and difficulties that have been met and overcome over the 40 years since inception.



From left: Prof Steven Davis, Prof Michael Halmagyi, Prof Matthew Kiernan and Prof Jim Lance.

Professor Lance is shown at left during his presentation with Professor Matthew Kiernan, Vice-President Medical of the Brain Foundation and chair of the scientific committee, Professor Michael Halmagyi the new president of the Brain Foundation and Professor Steve Davis the retiring president of ANZAN.

A more comprehensive history of the foundation is being undertaken by Professor Catherine Storey, a neurologist with an interest in history which led her to complete post-graduate studies in history and publish a History of Neurology in Australia. Her work for the Brain Foundation will be available later this year and excerpts will be published in our Summer edition of BRAINwaves newsletter.

Contact the Brain Foundation
PO Box 579, Crows Nest NSW 1585
Telephone: 02 9437 5967 or 1300 886 660
Fax: 02 9437 5978

Email: info@brainfoundation.org.au

Visit our websites www.brainfoundation.org.au and www.headacheaustralia.org.au

Headache and Migraine Awareness Week 2010

19-25 September

The emphasis this year will be upon the National Chronic Headache and Migraine Register.

If you are in this group please consider registering. All that is needed is a

contact Email or postal address. The Register has already been of help to two different headache research projects. We were able to advise those listed on the Register that there was a need for people from defined groups to participate, and the phone numbers to

contact in both cases. The researchers reported that they had adequate numbers for their projects. We are also able to keep those on the Register easily and readily informed about any new treatments that become available as was the case in March this year.

Vale Lady Sonia McMahon

It is with sadness that we report the passing of long standing Director, Lady Sonia McMahon.

Sonia was introduced to the New South Wales Committee of the Brain Foundation by Dr Kevin Bleasel and became a member in 1991. She was very active in all the fundraising events and joined the Board in 1997. As a director she was helpful and supportive and showed leadership by being a generous donor.

Lady McMahon is shown below at a recent Research Awards Ceremony with Phillip Isacacs AM to her left and Professor David Burke AO.



New Web Sites

We are proud to announce our new websites.

Our project consultant, Sue Waters has done an excellent job bringing together our requirements and information. Liaising with the Brisbane-based web development company Swanski and Hutch, has produced a quantum change in the appearance and functionality of the Brain Foundation and Headache Australia site.

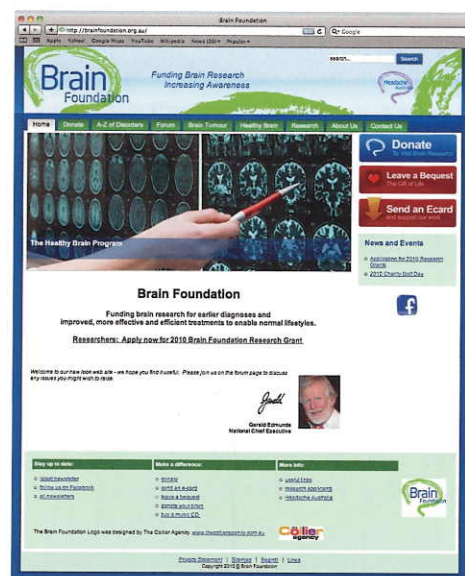
The Brain Foundation web site is now an information gateway to all neurological conditions.

Our new and improved website features contemporary visual effects to emphasize the nature of the work undertaken by the Brain Foundation. Our new sites have a modern appearance and we have a new logo courtesy of the pro-bono work by The Collier Agency. Our new website also features an "A to Z" section containing information about the prognosis for diseases and disorders and has links to all the associations, carer groups and the latest research for each.

A brochure, describing the site, will be widely distributed through the rooms of neurologists and neurosurgeons.

Note that the Brain Foundation's website address has changed to:

www.brainfoundation.org.au



Headache Australia site remains as: **www.headacheaustralia.org.au** and is linked to the Brain Foundation's site.

In both cases, if you do not have access to a computer, please call **1300 886 660** and we will find the information that you need and post it to you.

facebook Brain Foundation has launched a Facebook page. Please support us by becoming a fan, and help spread awareness about the Brain Foundation as your connection cascades amongst all your friends.

A New Partnership.

The Brain Foundation is pleased to announce that we have gained the support of Ray White Real Estate in Surfers Paradise.

With information about the Brain Foundation to be featured on the Ray White web site, we now have the opportunity to increase awareness

about the funding we provide for neuro-scientific research each year. Ray White CEO, Andrew Bell, is well known on the Gold Coast for his support of Muscular Dystrophy. Holding an Annual Charity Ball, he has raised much needed funds over the last 15 years. We look forward to a successful partnership.

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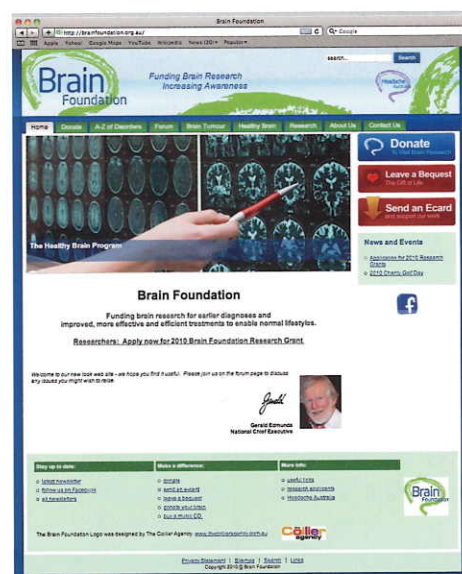
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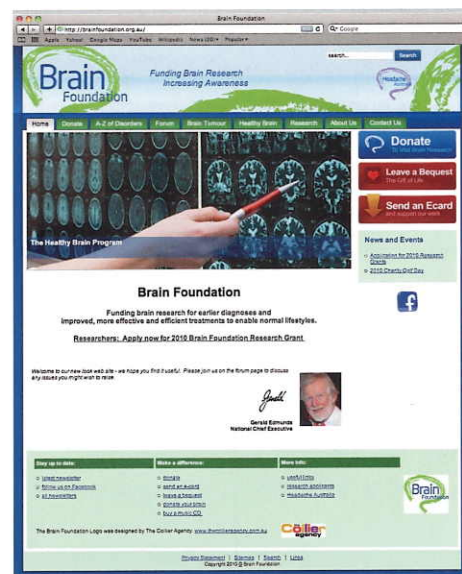
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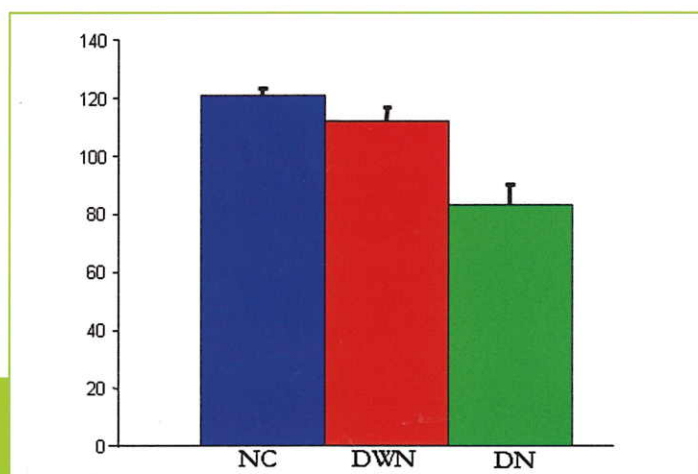
2008 Grant Recipients' Research Reports

Dr Arun Krishnan: Investigating the causes of diabetic neuropathy

Diabetes has reached epidemic proportions in Australia with almost ¼ of adult Australians manifesting signs of either diabetes or glucose intolerance.

Neuropathy occurs in almost 50% of diabetic patient and leads to weakness in the limbs and reduced sensation. Diabetic neuropathy is disabling and is associated with considerably reduced quality of life. At present there are no treatments for diabetic neuropathy, aside from optimising diabetic control. One of the major problems with developing new treatments is the inability to detect early signs of nerve damage. We have applied a novel technique, known as nerve excitability testing, to patients with diabetic neuropathy to assess whether there are changes that may be detectable in advance of severe nerve dysfunction. Our preliminary studies, funded through the Brain Foundation, have demonstrated changes in diabetic nerve dysfunction in patients who do not manifest any abnormality on routine testing methods. These changes mirror those that occur with more advanced neuropathy (fig. 1). The findings are important for the early diagnosis of neuropathy and raise the possibility that nerve excitability methods may be more sensitive in detecting minor nerve dysfunction in diabetic patients. These studies may also help direct future methods of treatment for this disabling condition.

Figure 1: Demonstrates the differences in nerve function between normal controls (NC), patients with severe neuropathy (DN) and diabetic patients who are not classified as having neuropathy by conventional measures (DWN). The results show that diabetic patients who are thought not to have neuropathy do nevertheless manifest abnormalities using our novel techniques. These patients can be clearly separated from the normal control population.



Dr Corinna Van Den Heuvel: University of Adelaide

Assessment of the neuroprotective properties of the amyloid precursor protein (APP) following brain injury.

We were very fortunate to have received a grant from the Brain Foundation in 2008 to aid us in our investigations into traumatic brain injury (TBI). TBI causes more deaths in Australians under 45 years of age than any other cause and to date there is no therapy to ameliorate this injury. Interestingly, there is increased production within the brain of a normal cellular protein called the amyloid precursor protein (APP) following TBI. APP can be broken down to form either a toxic protein $A\beta$, which is associated with Alzheimer's disease the commonest cause of dementia, or a protective protein known as $sAPP\alpha$. The different actions of these two breakdown products created a debate about whether the increase of APP seen following head injury was a beneficial or negative response. This instigated a collaboration between our group, with expertise in head injury, and Prof Roberto Cappai's group from the University of Melbourne, who are experts in APP biology, to explore this further. Our collaboration along with the Brain Foundation Grant has enabled us to conduct a vital novel pilot study exploring whether the APP is indeed protective following head injury.

Our results from this study were the first to demonstrate that mice lacking APP have a worse outcome following head injury than mice that have normal levels of APP. Mice lacking APP exhibited significantly greater motor and learning deficits that were associated with an increase in neuronal cell death and an impaired repair response. This study was the first to show that APP is a protective protein following TBI, with this exciting research presented at the Australian Neuroscience Society Conference, submitted for publication within the Journal of Neurobiology of Disease and forming the basis of a \$500,000 NHMRC grant application. We are now in the process of determining the specific regions within APP which confer this neuroprotective activity, with the main aim of developing them into an agent for treating neurotrauma.

Brisbane Zombie Walk

This event, now in its 3rd year, has been vigorously promoted by local Brisbane identities, Anthony Radaza and Cara Westworth. Held during October there will be more information on our websites and Facebook. Anthony has very kindly promoted this event to raise awareness about the Brain Foundation's community education and research programmes in a

younger group, as well as raising funds for the Brain Foundation. News about its success has spread and this year a group has formed to conduct a Zombie Walk in Surfers Paradise with the same aims emphasising the elements in the Brain Foundation's Healthy Brain project. There is interest in other cities that is in the preliminary stage.



City to surf: Heroes wanted

Entries are now open for the Sydney City to Surf Fun Run.

Last year, a number of runners very kindly nominated the Brain Foundation as their charity and a significant amount of money was raised. Alan Farrell, a Brain Foundation supporter and member of Southport Runners and Walkers, has been running every year since the first event and is expected to

complete his 40th, this year. If you are planning to run please nominate the Brain Foundation or set up a page with Everyday Hero or My Cause who both support the Brain Foundation.

Thanks,

In Memoriam

Diana Louise WINWOOD
Stephen Paul HOSFORD
Peter EDMONDS
Joyce WARD
Kevin Patrick CLEARY
Maria GEORGIU
John URQUHART
Justeen Gaye GASKELL
Kathleen LYALL McLEAN
Ronald Max WILLIAMS
David Ron WILLIAMS
Graeme STEVENSON
Ruth DAVIDSON
Emmanuel KOULOURIOTIS
Clinton COPPEL
Gayle Valmai WALTON
Jennifer COOPER
James WILLIAMSON
Gary MCLENNAN
Monica Maria JARRAD
Kees LINDEMAN
Alexander Buchan MARSHALL

In Celebration

Mr & Mrs A T PETERS

In Memoriam Concert

Matthew KREL

To make a donation, please complete this form and return it to the Brain Foundation using this reply paid envelope.

Name _____

State _____ Postcode _____

Telephone () _____

Mobile _____

Email _____

I would like further information about

☐ Making a bequest ☐ Workplace giving

I would like to receive the bi-annual

BrainWAVES newsletter by ☐ Post ☐ Email

Please accept my tax deductible donation to the Brain Foundation:

☐ \$200 ☐ \$100 ☐ \$50 ☐ Other _____

Regular donation:

I would like to make a regular donation to the Brain Foundation. Please debit my credit card for \$ _____ per month until I notify you.

Please find my cheque payable to Brain Foundation enclosed OR Please debit my ☐ Mastercard | ☐ Visa | ☐ Amex

Card No. _____ / _____ / _____ / _____

Expiry Date: _____ / _____

Name on Card _____

Card holders signature _____

Thank you for supporting brain research through the Brain Foundation