



TESTOSTERONE – NEW INTEREST!

Testosterone (the male hormone) has been in the news lately with Prof Ralph Martins featured twice on Channel 7's Today Tonight program. The story highlighted the success of testosterone treatment in a young Perth woman, Lorinda Klaric, who has early onset Alzheimer's disease. Observations by Prof Martins and his team suggest that the administration of testosterone may be associated with an unexpected stabilisation of memory in Lorinda Klaric. For her part, Lorinda reports feeling much better and having a lot more energy following testosterone implants. These comments have been echoed by her family members.



**Professor Ralph Martins
with Lorinda Klaric**

According to Prof Martins it is early days and while this is an exciting result it basically highlights the need for a more complete study into this hormone. This work will be presented at the International Conference on Alzheimer's disease in Paris in July. It is hoped that these results and the increased interest in testosterone will be the impetus for funding for a fully blown evaluation.

CRC WIN

The McCusker Alzheimer's Research Foundation Inc is a founding participant in Australia's newest Cooperative Research Centre – the CRC for Mental Health, which will commence on 1 July 2011. The CRC allows researchers from all over Australia to collaborate on two major programs; neurodegeneration and the psychoses. Prof Ralph Martins will head major studies in the neurodegeneration program. The CRC is funded for seven years and the institutions involved will receive \$23 million of Commonwealth funding in this timeframe. The Foundation will contribute a further \$6million to Prof Martins' program over the seven years. ECU, UWA and Hall and Prior Aged Care are also Western Australian founding participants.

This is a very exciting opportunity for Prof Martins' team and it will give younger researchers in particular a clearer career path. The CRC builds on current collaborations with CSIRO and will extend into related areas such as schizophrenia and Parkinson's disease.

In This Issue...

- 🌀 Clinical Trials Division
- 🌀 Research update
- 🌀 Nutritional Therapy Trials

New Human Studies Lab

The new Human Studies Lab is now open! The Foundation was honoured to have Malcolm McCusker AO QC open our new Human Studies laboratory in March. This is located at unit 2, 142 Stirling H'way, Nedlands. Memory and blood testing for many of the studies conducted by Prof Martins and his team will now be undertaken at this site. The Foundation is grateful for a grant from Lotterywest that enabled the building to be purchased and then fitted out to suit our purposes.



**Rob Meney, Dr Marcia Taylor ECU, Prof Martins,
Pat Meney at the opening**

Vice Patron Appointed

The McCusker Alzheimer's Research Foundation Inc is delighted that Mrs Terrie Delroy has accepted the position of Vice Patron. Terrie and her husband Trevor are major supporters and give great assistance to the Foundation.

Terrie Delroy is a proud wife and mother who has supported causes dear to her heart for many years. These have included overcoming learning difficulties, enhancing parenting skills and building self esteem. She has also mentored high school students.

Terrie is a linguist who loves reading, travel and adventure. She is also passionate about the south west of Western Australia, where she lives and is an active member of her local volunteer Bush Fire Brigade.

Terrie has seen first hand the devastation Alzheimer's disease and dementia bring to families and is committed to the Foundation's vision of a world free from Alzheimer's disease.



**Prof Martins
and Terrie Delroy**

Prof Ralph Martins – Research Overview



Prof Martins in the lab

Research at the McCusker Alzheimer's Research Foundation Inc focuses on four key areas; understanding the disease; development of treatments; identification of factors with the potential to defer or prevent the onset of the disease; and the discovery of an early diagnosis.

While work continues in these areas, recently we also received funding for a major study on the preventative value of specific nutritional supplements for AD. This study will focus on the potential of antioxidants and poly phenols to defer the onset of Alzheimer's. This is part of a challenge we are confronting - to identify lifestyle factors that can reduce or defer the onset of Alzheimer's.

We continue to progress potential therapeutic strategies, particularly beta amyloid neutralising agents and testosterone. We will be presenting the early results of our work on testosterone in July (see page one). We hope this will help attract further funding!

Nutritional Therapy Trials for the Prevention of Alzheimer's disease

Predictions of increasing numbers of people with Alzheimer's disease (AD) and the huge personal, social and economic burdens this will bring highlight the need for investigation and evaluation of potential preventive strategies. Two pilot studies to be carried out by Dr Sajla Singh, Dr Cynthia Gregory and colleagues at the McCusker Alzheimer's Research Foundation Inc are searching for nutritional supplements that could prove beneficial in the preservation of memory and prevention in cognitive decline.



Dr Cynthia Gregory
and Dr Sajla Singh

Numerous studies have demonstrated that elevated total plasma cholesterol levels result in increased deposition of beta amyloid ($A\beta$) in the brain, increasing an individual's risk of developing AD. However, HDL-Cholesterol (the so called good cholesterol) particles are thought to assist in $A\beta$ clearance and degradation and could have a role in Alzheimer's disease prevention. The Indian gooseberry 'Amla' (*Emblica officinalis*) has been shown in some studies to reduce blood cholesterol levels and is the subject of one of the studies to be undertaken by Dr Singh and Dr Gregory.

The Amlamax study will utilise herbal extract from the Indian gooseberry 'Amla' evaluating the efficacy of the natural dietary supplement "AmlamaxTM". This will be a randomized double-blind-placebo-controlled six month study involving the screening of 200 participants for HDL Cholesterol levels to ascertain eligibility. From this group 100 participants will proceed to the next stage of the study. The study will examine whether the supplement is associated with decreased total cholesterol levels, increased HDL-C level and therefore decreased plasma beta amyloid ($A\beta$) levels.

The BiocurcumaxTM (BCM-95[®]CG) pilot study is also a randomized double-blind-placebo-controlled 12 month study, utilising an herbal extract of an Indian curry spice 'Turmeric'. Curcumin, the main bioactive ingredient of

Research results to be presented internationally



Dr Hamid Sohrabi being filmed

Our Foundation Post-doctoral Researcher and neuropsychologist Dr Hamid Sohrabi has been invited to present at the world's largest Alzheimer's conference, ICAD (International Conference on Alzheimer's Disease) to be held in Paris in July 2011.

Dr Sohrabi's presentation will outline how olfactory function can be utilised to predict future cognitive decline in patients, resulting in a better understanding and potential earlier diagnosis of Alzheimer's disease. This research may lead to a more cost effective and time efficient way to screen for the disease.

Dr Sohrabi received an American Alzheimer's Association Travel Fellowship to attend the conference where he will present the research to over 5,000 Alzheimer's experts and academics.

turmeric has an ability to bind to amyloid thus interfering with plaque formation and degrading the existing plaques. However, it is apparently poorly absorbed in humans. BCM-95[®]CG, a novel bio-enhanced preparation of curcumin has been reported to be more bioavailable (better absorbed) when compared to curcumin. 160 Perth participants will be recruited for this study.

Eligible subjects in both studies are divided into two groups, an experimental group consuming the supplement and a control group consuming a placebo (non active ingredient capsule). All participants will be closely assessed over the study period to monitor their physical activity levels, their molecular (blood) markers and their neuropsychological (memory) predictive markers of cognitive decline. The results of both studies are expected to be analysed by the end of next year.

Clinical Trials Division

The Clinical Trials Division of the McCusker Alzheimer's Research Foundation Inc conducts clinical trials evaluating the effectiveness of pharmaceutical agents being investigated as therapeutic agents for Alzheimer's disease. The unit is under the supervision of Associate Prof Roger Clarnette, a senior specialist physician with a PhD and particular interest in memory loss and Alzheimer's disease. The Clinical Trials Division is permanently staffed by study co-ordinators with nursing qualifications, an administrative officer, and sessional psychologists and medical practitioners who are involved in particular trials. The Division is based at the Hollywood Specialist Centre (next door to the Medical Centre).



**Dr Roger Clarnette
and the CTD team**

Each clinical trial is labour intensive with considerable preliminary work undertaken examining the feasibility of conducting the trial at the Clinical Trials Division. Once a decision is made to further explore the possibility, there is then extensive liaison with institutional ethics committees, potential participants and their families, pharmaceutical company trials representatives, industry monitors and internal auditors. Potential participants are then carefully screened against the detailed and usually highly specific criteria for entry into particular trials. The majority of the participants have previously been

diagnosed with and are already receiving treatment for Alzheimer's disease.

The Clinical Trials Division could not operate without and is very grateful for the support of participants and their families. Dr Clarnette, his staff and all Foundation researchers particularly appreciate the preparedness of participants to undergo such rigorous testing and the cooperation of family members who answer questionnaires and provide observational feedback about any changes, to the trials staff.

At any one time the CTD may be involved in four or five trials. For further information please contact the Foundation on **9347 4200**.

Your Legacy Could Help our Research

When it comes to your Will it is only right that your family and friends come first in your thoughts. But that doesn't mean you can't also leave a gift to a cause close to your heart.

Please remember the McCusker Alzheimer's Research Foundation Inc in your will. With your help we can find a cure for Alzheimer's disease.

Imagine a world where grandparents grow old gracefully, where grandchildren can enjoy the world of memories and experiences of the elderly, share happy times and benefit from the wisdom of the past. Imagine a world without a lot of fear of growing old.

Devastation of the brain makes strangers of your family and the world a lonely, confusing and frightening place. Given time and research dollars the agony

of slowly losing precious memories, losing the ability to care for yourself and having to rely on family, friends and complete strangers to survive can be overcome.

You can help free the world from the tragedy that is Alzheimer's disease. We will use your legacy in our work on Alzheimer's disease:

- to help determine the cause;
- to work with scientists around the world in a shared race to find answers;
- to develop early diagnostic tools;
- to search for a cure.

Living a full and productive life is a gift for all generations. Make a world free of Alzheimer's disease your legacy.

For further information please contact Gillian or Judy at the Foundation on **9347 4200** or **admin@alzheimers.com.au** Our legacy program is being coordinated by Board member Debbie Doncon. The Foundation is grateful to Debbie for her support and advice in this area.

Chairman's Address



Graham Nixon

The Foundation was delighted to have our Patron, Malcolm McCusker AO QC, open our new research facilities at 142 Stirling Highway on March 14. Lotterywest have been most supportive of the wonderful work of Professor Ralph Martins by providing \$1.8 million for the purchase and fitting out

of the new facility. Its main focus will be conducting memory studies and the associated blood collection and storage, all activities connected to developing an early diagnosis blood test.

Our annual general meeting was held on April 29 and our audited accounts were presented showing an operating loss of \$215,000. The net worth of the Foundation actually increased by \$2,200,000 due primarily to the Lotterywest grant of \$1.8 million and the West Australian Government's grant to purchase a Mass Spectrometer of \$605,000. The Foundation is much stronger but must not operate at a deficit in 2011.

A major achievement for Professor Martins and his team has been their successful inclusion in the Cooperative Research Centre (CRC) for Mental Health that will begin on 1 July. A major reason for this success has been the Foundation committing significant sums for the seven year life of the CRC which in turn attracts Commonwealth matching funding. Edith Cowan University, UWA, Hall & Prior and a number of Melbourne bodies are also involved. The Foundation's commitment of cash was a key factor in the application's success. The extra funding from the CRC will be of great value to our team.

Another piece of news that delighted all associated with our Foundation was the announcement of our Patron, Malcolm McCusker, being appointed the next West Australian Governor beginning 1 July. This will be a team effort for both Malcolm and his wife, Tonya, and I know they will do the job superbly. Our very best wishes to them for the years ahead.

Finally as the Foundation's Chairman it is pleasing to see the progress we are making on several fronts. We now have our own two properties, Suite 22 at the Hollywood Private Hospital Medical Centre and the just completed 142 Stirling Highway. The success of the CRC application will add funds to our research effort. The existing programs of an early diagnosis blood test, brain imaging and lifestyle studies are all making good progress. In addition Dr Roger Clarnette and his team in the Clinical Trials Division are testing some new treatments that could offer improvement within a few years.

Given the enormous implications of the large increase in numbers predicted that will have Alzheimer's Disease within a few years, I implore you to assist us in finding ways to prevent this dreadful disease so these predictions can be avoided. I assure you Dr Judy Edwards and myself are very aware of the responsibility we have in utilising donated funds to maximum effectiveness.

Dinner at Maurizio Restaurant

The Foundation held a very enjoyable and successful fund raising dinner at Maurizio Restaurant on 12 April. Special thanks to Maurizio and his staff for the fabulous meal and to Enzo Sirna for organising the event.



Anton and Clelia Doeve from Rome with Malcolm and Tonya McCusker and Ralph Martins

Public lectures successful

Very successful research report back lectures were held in early May at the State Library in Perth. Each session included an update from Prof Ralph Martins about his latest research as well as current information on clinical aspects; memory; and the early detection of Alzheimer's disease.

The lectures have proved so successful we will be repeating them in October. PowerPoint presentations from the lectures can be viewed on the Foundation's website www.alzheimers.com.au



Malcolm Rowe, Dr Stephanie Rainey-Smith and Prof Martins



Dawn Edwards and Dr Terry Bayliss

Lion's plaque

Each year Lions clubs across Western Australia raise money to benefit our research. Leading this charge is the Lions McCusker partnership group. On 14 Feb the partnership group and state Lions office bearers celebrated this success with the presentation of a plaque by the Foundation acknowledging the fabulous efforts by Lions clubs.



Judy Edwards, Maureen Tonkin, Pat Meney, Patsy Wyndham with the Plaque

Alzheimer Facts

By the 2060s, spending on dementia is set to outstrip that of any other health condition. It is projected to be \$83 billion (in 2006-07 dollars), and will represent around 11% of the entire health and residential aged care sector spending.

Source: www.alzheimers.org.au/key_facts

How Can You Help?

Our research relies on public donations through the McCusker Alzheimer's Research Foundation, to continue its vital work.

You can assist in several ways:

- by making a donation directly to the Foundation;
- by becoming a Friend of the Foundation and assisting us in organising events and in promoting the research;
- by volunteering to participate in our studies; and
- by making a bequest.

Please support Professor Martins and join the McCusker Foundation in its fight to make Alzheimer's disease treatable and preventable.

How to Contact Us

Please feel free to contact us:

McCusker Alzheimer's Research Foundation Inc.
Suite 22, Hollywood Medical Centre
85 Monash Ave, Nedlands WA 6009
Tel: 9347 4200

Dr Judy Edwards, *Executive Manager*
judy.edwards@alzheimers.com.au



THE UNIVERSITY OF
WESTERN AUSTRALIA

HOLLYWOOD
PRIVATE HOSPITAL

