

Priceless



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Craig**
Medical
Research Trust

THE NEWS BULLETIN FOR SUPPORTERS OF THE CLIFFORD CRAIG MEDICAL RESEARCH TRUST

2013 Medical Research Grants Announced

112 important medical research projects funded over 20 years

A new round of research grants worth over \$200,000 were recently announced by the Chairman of the Clifford Craig Medical Research Trust, Associate Professor Don McTaggart, totalling research funding to more than \$4 million since the Trust was established in 1992.

During the past 20 years, the generous support of the Tasmanian community has enabled the Clifford Craig Medical Research Trust to fund 112 important medical research projects that have been conducted here in our local community by our own local health professionals.

Associate Professor McTaggart said the primary objective of the organisation is to facilitate high quality medical research that provides ongoing improvement in health related issues that are important to Tasmanians and our total research commitment in 2013 will be over \$350,000.

"Most importantly, our funding program aims to support research that is undertaken locally by our own clinicians, researchers, medical students and health professionals," he said.

"This latest funding round has seen another seven important research projects awarded grants by the Trust, plus we have allocated funds for three advanced trainee scholarships and a Clifford Craig student "honours" scholarship."

"The Launceston General Hospital is a teaching hospital and the funding provided by the Clifford Craig Medical Research Trust is a great example of how we aim to support the research initiatives of the medical professionals who work in our hospital whilst also encouraging trainees and medical students to come and undertake their training in Northern Tasmania".

A detailed description of the seven new projects is on page 2.



Dr Anthony Cook explains his glaucoma research at the funding announcement

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Research Update

Medical Research Projects Award

Understanding the biological function of glaucoma causing genes

Dr Anthony Cook - \$30,000

Glaucoma is an eye disease that results in progressive loss of vision, leading to blindness if left untreated. Although we know many of the genes that are associated with this disease, for some of them, we do not know how they contribute to the disease. In this project, we focus on understanding a gene called ANRIL, which was first identified as being associated with glaucoma in the Tasmanian population. ANRIL is thought to control the rate at which our cells grow and divide to form new cells. How normal ANRIL function is changed by the glaucoma-associated mutation, and the consequences of this for cell growth and division, is not known. In this project, we will grow cells in the laboratory from the skin samples of glaucoma patients who have different forms of the ANRIL gene. We can then study those cells by comparing the amounts of different biological molecules made by cells with different forms of ANRIL. Through this project, we hope to understand how ANRIL functions in healthy cells, and what processes are affected when this gene becomes non-functional. Our results may ultimately lead to new treatment strategies for glaucoma.

Role of inflammatory protein complexes in bowel disease: Can they be useful in diagnosis and treatment?

Dr Raj Eri - \$60,000

Inflammatory Bowel Disease (IBD) affects over 60,000 mainly younger Australians and costs close to \$3 billion per year to our economy. IBD patients suffer from chronic diarrhoea, intestinal bleeding and abdominal pain affecting the quality of life. The incidence of IBD is on an upward trend in Australia. The cause of IBD is unclear. Recent studies in mouse models of IBD clearly showed a role for a disease causing protein complex known as the inflammasome. The complex activates two important chemicals namely interleukins 1 and 18 whose role in IBD is unknown in human gut disease. The overall aim of this project is to precisely understand the role of inflammasomes in IBD patients. The specific aim is to measure the levels of inflammasome components in biopsies from IBD patients and non IBD control subjects. Patients will initially be asked to provide information related to their medical history and whether they are currently taking any medication. When

the clinician performs colonoscopy for your diagnosis, some extra biopsies will be collected specifically for this study as well. These samples will be stored for the duration of the study and will be coded. The collected biopsies will be processed in the research laboratory (Dr Eri at UTAS). Patient and control samples will be tested for the role of protein complexes known as inflammasomes. The knowledge gained from this project will aid in understanding how inflammasomes contribute to the development of IBD, which may help in the development of treatments and/or approaches to therapy in patients with IBD.

Is antibiotic resistance in a common respiratory pathogen also associated with increased capacity to cause disease?

Dr Stephen Tristram - \$13,250

Respiratory infections are significant burden on human health and are associated with up to 2 million deaths per year worldwide. In Australia, respiratory infections such as community acquired pneumonia, acute exacerbations of bronchitis, otitis media, and sinusitis are the most common presenting illnesses for which clinicians prescribe antibiotics. Haemophilus influenzae is a microorganism that is frequently involved in these infections, and over the last few years has developed a specific mechanism of antibiotic resistance that undermines the effectiveness of the three most common used antibiotics for these infections. More recently some research has suggested that the molecular and genetic changes in the microorganism that produce this antibiotic resistance also enhances the ability of the microorganism to invade the cells that line the respiratory tract. If true, this may enhance the capacity of the microbe to cause disease and allow it to "hide" in respiratory tract cells and avoid exposure to the immune response and to antibiotics. This study aims to confirm the original research and determine if alternative antibiotics are capable of eradicating microorganisms that have invaded the respiratory cells.

Can Vanilloids protect lupus patients from blood clots?

Dr Murray Adams - \$30,000

Platelets are small fragments derived from larger cells in the bone marrow that stick to each other (aggregate) and are required for normal blood clot formation. Unfortunately, they also play a critical



ded Clifford Craig Funding in 2013

role in the abnormal development of blood clots (thrombosis) in a wide range of human diseases, including systemic lupus erythematosus (SLE or lupus) and cardiovascular disease (CVD). We have previously shown that compounds called 'vanilloids' are able to inhibit how platelets normally work or aggregate, in the laboratory. We now aim to determine how this occurs in platelets from 'normal' individuals (without problems with blood clotting) and compare this with patients with 'lupus' (who often develop blood clots). Our research will therefore provide information about whether 'vanilloids' could potentially be exploited as novel drugs for reducing the abnormal clotting effects of platelets in patients such as those with SLE who experience blood clots and CVD, either by themselves and/or with existing treatments.

Biomarkers of chronic kidney disease and its progression in Northern Tasmanians

Prof Dominic Geraghty - \$36,887

The number of Tasmanians that will require dialysis or a kidney transplant is predicted to reach 360 by 2020. Early detection of chronic kidney disease means that treatments that slow its progress can be started promptly, delaying the requirement for dialysis or a kidney transplant. Treating the disease in its early stages can also slow the development of cardiovascular disease in these patients. Usually, people only discover that they have the disease when it is well advanced. The levels of certain chemicals in blood change early in chronic kidney disease and may act as an early warning system while others may tell doctors how fast kidney disease is progressing. In the proposed study, we will measure several of these markers in blood samples from Northern Tasmanian kidney disease patients and controls of similar age to determine which markers best predict the disease and its rate of progress. The results will help doctors to intervene earlier in the disease to slow its progress.

Factors affecting lower back pain in pregnant women

Dr Andrew Williams - \$7,000

50-90% of pregnant women will develop lower back pain (LBP) during pregnancy. LBP in pregnancy is the primary indicator for LBP or disorder following and during subsequent pregnancies. Thirty percent of women continue to experience lower back disorder for at least three years after pregnancy. A likely influencing

contributor to LBP during pregnancy is blood relaxin, the hormone responsible for softening connective tissue and affecting the function of musculoskeletal joints.

Relaxin levels in the blood increase throughout pregnancy, and this research aims to determine if elevated relaxin and spinal joint laxity during pregnancy leads to LBP and restricted function. The outcomes of this study may have implications for pregnant women employed in manual handling work as well as the longer term outlook for women who have been pregnant in work.

It is expected that the data generated by this study will;

1. Enhance understanding of the mechanisms involved in the development of lower back disorder during pregnancy and inform design of nursery furniture
2. Highlight the periods of peak risk of LBP during pregnancy
3. Provide valuable data which may contribute to the modifications of manual handling guidelines for women during pregnancy.

A functioning mother is essential to the wellbeing and development of her children. Lower back pain and reduced function significantly impacts on a mothers quality of life and her capacity to care for her children. It is likely to result in significant health and social welfare costs.

Student Project – Mobile phones as a reservoir for bacterial growth. Could use by health professionals pose a risk of being reservoir for bacterial growth and source of bacterial transmission?

Chief Investigator – Dr Kathryn Ogden - \$3,400

The study will be investigating whether mobile phones are a reservoir for bacterial growth and transmission in a hospital setting. We believe that the study can yield important results, seeing as mobile phone usage has increased exponentially in recent years and mobile phone cleaning has yet to be part of daily clinical practice. There is increasing concern that environmental surface (such as phones) can harbor bacteria, which can then be passed on to objects coming into direct patient contact (such as hands, instruments) and cause infection. This would be the first study of its kind in Australia, and the results will be relevant not only nationally, but internationally as well due to the increasing use of mobile phones in hospital settings worldwide.



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We would first collect swabs from the dominant hands of healthcare workers and mobile phones; this allows us to determine how often bacteria can be found on mobile phones. We can then compare that against the bacteria found on the hand to see if there are any significant similarities. If there are, we can then suggest that there may be bacterial transmission from the mobile phone to the hand (and through to the patient). The next step of the study takes this further; we will get healthcare workers to clean their hands, and then handle their mobile phones for 2 minutes before taking another swab of the hand. If we obtain bacterial growth this time that is similar to the one taken from the mobile phone, this would further support our suggestion of bacterial transmission from the mobile phone to the healthcare worker's hand. We would also collect data regarding mobile phone use, mobile phone type and cleaning habits to investigate if any of these results in greater bacterial growth.

Come to Breakfast and Be Inspired

We were delighted to see so many people come along to the October Professional Breakfast to hear author, journalist and radio presenter Hilary Burden. Her passionate presentation was well received and also inspired many to purchase her newly released book "A Story of Seven Summers".



October guest speaker Hilary Burden signs a copy of her new book for Dr Mike Monsour

Don't miss our Christmas Breakfast on **Thursday 13th December** as our speaker will provide us all with an inspirational start to the day through the ground breaking research he is undertaking into dementia at the Launceston General Hospital.

Associate Professor George Razay is a General Physician, Geriatrician and Director of the Dementia Research Centre at the LGH. He has extensive research experience in the field of Alzheimer's disease and is currently undertaking a major research project, funded by Clifford Craig Medical Research Trust, into a treatable form of dementia, Normal Pressure Hydrocephalus. His research has the potential to improve the quality of life of many patients who would otherwise be condemned to progressive dementia and disability.

Visit our website to book: www.cliffordcraig.org.au

Yes, I would like to help the Clifford Craig Medical Research Trust

- I would like to make a one-off donation of \$_____
- I would like to have monthly donations of \$_____ deducted from my credit card.
- All donations over \$2 are tax deductible.

Please complete the following details:

Title/s: Mr / Mrs / Miss / Other _____

Given Name/s: _____

Surname: _____

Address: _____

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Please accept my donation/s in the form of:

- Cash Cheque/Money Order*

*Payable to the Clifford Craig Medical Research Trust

OR

Please debit my:

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Credit Card No.: _____

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Signature: _____

- Please send me information on remembering the Trust in my Will.
- Please send me information on making an annual gift using your courtesy reminder service.
- Please apply my gift to the North West Medical Research Fund.

Thank you for your support

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The runners are away.



Mark Connelley and Hawka warm up the kids.

Run for Your Heart

Over 400 people turned out on a glorious spring morning in October to participate in the annual "Run for Your Heart" fun run and walk at Aurora Stadium in Launceston.

People of all ages and fitness levels put on their training shoes and participated over the 5km course from Aurora Stadium and through Heritage Forest. This year's event also included a new 800 metre kids run which included a pre-race warm-up with fitness coach Mark Connelley and "Hawka".

Clifford Craig CEO, Peter Milne, said it was terrific to see so many people coming out and participating in some healthy activity. "The primary aim of "Run for Your Heart" is to encourage people to come and be active whilst also creating awareness of the benefits of regular healthy exercise" he said.

Next year's "Run for Your Heart" will be held on Sunday 6th October 2013.

Around the Bay on a Bike

Chief Executive Peter Milne recently joined 17,000 recreational cyclists and rode around Port Phillip Bay in Victoria.



CEO Peter Milne after the 220km journey.

The Around the Bay bike ride was held in October and Peter undertook the challenge of the 220km with a group of cycling buddies, who took 8 hours to complete the round trip journey from Melbourne via Sorrento, ferry to Queenscliff and Geelong.

Thank you to the supporters who sponsored Peter's ride as he raised \$2,300 for the Clifford Craig Medical Research Trust.

Message from the Chief Executive Officer

2012 is a milestone year for the Clifford Craig Medical Research Trust as it is 20 years since the organisation was established in May 1992.

Many of our promotional and fundraising activities throughout the year have been associated to the 20th Anniversary and it has been wonderful to meet a number of people who were involved with the Trust when it was being formed in the early 1990s. As the current day Chief Executive, I have found it both enthralling and inspiring to hear of the historical origins of the organisation and the high regard these people have for the Clifford Craig Medical Research Trust, 20 years after it began its wonderful journey.



One such person is Mr Laurie Wing, a founding member, and the guest speaker at a recent anniversary function. As Chairman of the Northern Regional Hospitals Board at the time, Laurie was one of the passionate "visionaries" who developed an idea into reality during the late 1980s and early 90s. Their vision was to create a "community based" organisation that was completely separate from Government, but could raise funds to support medical research at the Launceston General Hospital and expand the Hospital's teaching and education role.

Laurie recalled the original public meeting that was held to discuss the feasibility of such an organisation and the many people who were involved throughout the formation and early years. These included local business and community leaders such as Roelf Vos, Jim Hughes, Dr John Morris, Rosalind O'Connor, Anne O'Byrne and Prof Coleman O'Flaherty. They were subsequently joined by many other enthusiastic supporters to form what has now become a highly regarded medical research organisation that provides ongoing improvement in the health related issues that are important to Tasmanians.

In discussion with many of our long-time supporters during this 20th anniversary year, it has been fascinating to listen to their recollections of the foundation years and witness the pleasure they have derived from seeing the Clifford Craig Medical Research Trust develop into the organisation it is today.

Peter Milne
CEO

Rainbow Ball Celebrates 10 Years



The North West Medical Research Fund held its 10th annual Rainbow Ball in August to raise funds for medical research on the North West Coast.

The Burnie Town Hall was transformed into an African theme and Chairman Peter Mancell, said the night was a fantastic success and had raised substantial funds for the North West Research Program.

He thanked the hard working committee who had dedicated many hours to ensuring another very successful event.

Antioxidants and Your Health

- ✓ Have you been stressed from work, financial, or relationship problems?
- ✓ Have you been exposed to ultra violet (UV) rays from the sun or fluorescent lights?
- ✓ Have you been exposed to pollution including cigarette smoke or household cleaning chemicals?
- ✓ Have you been making poor nutrition choices, such as highly preserved foods or excessive alcohol?

If you answered yes to any of the above questions, then your body is continuously producing free radicals. Free radicals are substances produced when the body is stressed, or is getting rid of toxins or when exposed to a polluted environment. Overloading of free radicals can cause damage to body cells, contribute to blindness, arthritis, Alzheimer's disease, Parkinson's disease, heart disease, and cancer.

What can you do to help your body cope with free radicals?

Antioxidants are substances in the form of nutrients that may protect your cells against the effect of free radicals. The effectiveness of antioxidants has been widely researched. For example a randomised trial study which demonstrated a combination of beta-carotene, vitamin E, and selenium significantly reduced incidence of gastric cancer; while Lutein has been associated with a lower incidence of eye lens degeneration and blindness in the elderly population. Vitamin E and beta-carotene has also been shown to help prevent cancer and cardiovascular disease among women age 45 or over; and Flavonoids are believed to contribute to lower rates of heart disease.

Taking a supplement in order to get antioxidants is not essential. You can get adequate amounts of antioxidants just by simply eating plenty of different varieties of fruits and vegetables every day.

Example of Antioxidants and Sources:

Antioxidants	Sources
Anthocyanins	Eggplant, grapes, berries
Beta-carotene	Carrots, pumpkin, sweet potatoes, spinach, mangos, apricots, rock melon
Flavonoids	Tea, green tea, citrus fruits, red wine, onion, apples, cocoa
Isoflavonoids	Soybeans, tofu, soy products, lentils, peas
Lutein	Green leafy vegetables eg. spinach, egg yolk
Lycopene	Tomato, watermelon, pink grapefruit, blood oranges, paw paw, guava
Selenium	Seafood, brazil nuts, eggs, meat, nuts, seeds, grains, legumes
Vitamin A	Liver, sweet potatoes, carrots, milk, egg yolks, mozzarella cheese
Vitamin C	Citrus fruit, strawberries, kiwi fruit, blackcurrants, broccoli, capsicum
Vitamin E	Avocados, vegetable oils, wheat germ, nuts, seeds, whole grains



Try this recipe for an antioxidant boost to your diet: Baked Apples with Walnuts & Dried Fruits

- 6 Golden delicious apple
- 2 tbsp maple syrup
- 1 cup chopped walnuts
- 1 tbsp butter
- ½ cup dried cranberries
- 1 tbsp lemon zest
- ½ cup apricot jam
- ¼ tsp ground cinnamon
- 1½ cup apple cider
- ¼ tsp ground nutmeg
- ¼ cup shredded coconut
- ½ tsp vanilla bean paste

1. Preheat oven to 190°C. Lightly coat a shallow baking dish with cooking spray.
2. Core all of your apples, creating a 1-inch-wide hole. Peel the upper third of the apples. Score the flesh about ¼-inch deep around the circumference where the peeled and unpeeled portions meet. Now cut a shallow crater around the top of the hole. This will help to hold the filling that will go there. Set apples aside.
3. Put walnuts, dried cranberries, and coconut in a food processor and chop. Add lemon zest, maple syrup, nutmeg, and cinnamon and pulse several times to combine the ingredients.
4. Put the apples in the baking dish and press ¼ cup of the filling into each cavity. Spoon a tablespoon of the jam into the crater you created in each apple.
5. Combine the butter and apple cider in a saucepan and keep over low heat until the butter has melted. Now remove it from the stove and stir in the vanilla. Pour the liquid all over the apples.
6. Cover the apples with aluminum foil and bake on your oven's center rack for thirty minutes. Remove the foil and baste the apples, then continue to bake (uncovered) for twenty to thirty-five more minutes, basting every ten minutes, until the apples are tender. Serve warm with low fat yoghurt, ice-cream or custard. Enjoy!

This Healthy Living article was kindly written by Varitha Dulayanurak from the Nutrition Department at the Launceston General Hospital.