

QUEST

Autumn 2011

The Quarterly Newsletter of the Royal Hobart Hospital Research Foundation

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Our QUEST is for knowledge that will lead to better healthcare and medical services for the people of Tasmania. You can help us by supporting our research efforts with a gift, bequest or donation.

Each year the Foundation funds research into a variety of disorders affecting the lifestyle and well-being of the people of Tasmania, including cancer, heart disease, stroke, diabetes, Alzheimer's and Parkinson's diseases.

This research is undertaken by doctors, nurses, surgeons, anaesthetists, scientists, pathologists and many other health professionals at the Royal Hobart Hospital, and the University of Tasmania's medical school and Menzies Institute.

Many of our researchers are nationally-renowned in their fields, whilst others have achieved international acclaim for their efforts. All of them are working to improve the quality of healthcare for Tasmanians.

Your gift, bequest or donation can be vital in ensuring that this QUEST continues to provide benefits for Tasmanians, now and into the future.

Grants Announcement – Over \$900,000 awarded to medical research



His Excellency, The Honourable Peter Underwood AC, Governor of Tasmania announced the recipients of the Royal Hobart Hospital Research Foundation's major research grants program for 2011 on Friday 18th March.

The Research Foundation is providing an amazing \$917,300 in funding for local medical and healthcare research in 2011.

Research groups from the Royal Hobart Hospital, Menzies Research Institute Tasmania, the School of Medicine and the School of Pharmacy, University of Tasmania, received grants to continue their medical research careers, in Tasmania. Research areas include prostate cancer, cystic fibrosis, kidney disease, and chronic obstructive pulmonary disease (COPD).

The Research Foundations' Acting CEO, Ms Heather Chong, said the grants will help the successful researchers to continue their careers contributing to the health of Australians.

"Tasmania is home to a number of outstanding medical researchers and projects that are providing us with the evidence we need to drive rapid improvement in the prevention, cure and treatment of disease."

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RHHRF on the move.....

With the redevelopment of the Hospital under way, the Foundation is moving from our current location.

Come and find us on the 5th Floor of MBF Building, 25 Argyle St. with effect from the 11th April 2011.

Postal address and phone numbers all remain the same....



48 Liverpool Street Hobart Tasmania 7000
GPO Box 1061 Hobart Tasmania 7001
p: 03 6222 8088 f: 03 6222 7930
e: research.foundation@dhhs.tas.gov.au
www.rhresearchfoundation.org



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Grants Announcement continued...

"The local research supported by the Royal Hobart Hospital Research Foundation is decided after a competitive application process and rigorous peer review."

"Only projects and researchers of excellence are selected to pursue their investigations in Tasmania," she said.

Professor Matthew Jose, Head of Nephrology, spoke of the

difference that the grant would make in the lives of chronic kidney disease sufferers. With over \$250 million estimated to be needed over the next 10 years on dialysis and kidney transplants, the study will look at "...the health and happiness of Tasmanians already on dialysis, particularly as we begin to treat people closer to their home - yet further away from hospital and support staff," Dr Jose said.



Ms Leanne Stafford who, in a team led by Prof. Greg Peterson is working on factors influencing the outcomes of therapy with the anticlotting medication, clopidogrel, in patients with acute coronary syndromes



His Excellency and Professor Matthew Jose.



At the Research Foundation we are always looking for new ways to raise funds for vital medical research in Tasmania. This year we have decided to offer The Entertainment™ Book as a way of adding to the many ways in which our loyal supporters can help support what we do. The Entertainment™ Book is a local restaurant and activity guide providing hundreds of 25% to 50% off and 2-for-1 offers from the finest restaurants, cafés, attractions, theatres and accommodation.

On average Tasmanians who bought the book last year saved over \$600 – a valuable investment for only \$55. The Research Foundation keeps 20% of the price of each book sold. The flyer enclosed with this issue of QUEST gives more details on this valuable fundraiser. You can mail or fax your order to us or just give us a call. If you would like to have a look at the book, or purchase one from us without the need for postage please feel free to pop into our new office on the 5th floor of the MBF building.

Sypkes Research Fellow - Dr Amir Soltani Final Report

Dr Amir Soltani Abhari received a Research Fellowship grant in 2007. The grant, which was made possible by the generous support of the Sypkes family, looked into the epidemiology of respiratory disease.

The Sypkes family originally became involved with the RHH Research Foundation after Rudie Sypkes was diagnosed with Idiopathic Pulmonary Fibrosis (IPF) in 2005.

Andrew Sypkes, on behalf of the family said: "We are extremely pleased with the results of Dr Amir's research, and are proud to have supported him over the past few years.

We know Rudie would have been really pleased with Dr Amir's results too, and in his words, he would have called it a great investment!"

He went on to add "We're looking forward to hearing about the application of Dr Amir's research in the future and wish him all the best in his career. We applaud him for dedicating his life to helping others and researching cures to diseases such as IPF and COPD. We also look forward to funding additional medical research in close partnership with the RHH Research Foundation in the future."

The Sypkes family and the Research Foundation are together very pleased to have been able to support this fundamental research being undertaken in Tasmania.

Dr Soltani provided the following summary of his project:

2010 was the last year of my tenure of the Sypkes Fellowship through the auspice of the RHHRF. My 3 year project has pursued novel findings of changes in the detailed structure of the airways in smokers, and even more so in those who develop airflow obstruction (COPD or 'Bronchitis and Emphysema'). My particular focus has been on changes in airway blood vessels, but the work overlaps with other studies going on in the group which are finding evidence for active the process termed Epithelial-Mesenchymal Transition: this means that surface epithelial cells transform into fibroblast-like cells that become motile and digest their way through the underlying barrier of the epithelial fibrous basement membrane. This structure appears fragmented and friable, with large clefts in it, which contain abnormal cells. These cells stain as fibroblasts, but also stain for tissue-digesting enzymes. All this work comes from biopsies we have been taking from the airways of volunteers who undergo bronchoscopy after full clinical and physiological assessment, so we have been able to relate these pathology changes with lung function, and indeed these changes in the basement membrane do correlate with decrease in airflow in COPD.

From the past year my key findings in this work on airway biopsies may be summarised as:

Distribution of vessels in the airways: My study on the ultrastructure of airway biopsies showed that vessels are localised differently in smokers compared to normal non-smoking subjects. In the superficial part of airways in contact with the epithelial basement membrane and indeed growing into it, there is a marked increase in vessel numbers which are also leakier than normal; while in the deeper areas of the biopsies there are fewer vessels in smoking subjects than there should be. The reason of this redistribution is not yet clear, but presumably is related to changes in production of vascular growth factors which further research now needs to define.

Response to Steroid treatment: After 6 months of aggressive treatment with inhaled corticosteroid therapy these pathological changes in the superficial part of the airways in smokers largely resolve. We know that individuals with COPD do respond to steroids long term by having fewer exacerbations, a lower incidence of lung cancer, and have some decrease in loss of lung function, but we have previously had little information of what was actually happening in the airways under these therapeutic circumstances.

In addition to these immunopathology studies, I have also been undertaking a study documenting in detail clinical and demographic characteristics of patients attending the Emergency Department at the RHH with acute exacerbations of COPD. I have been able to collect these details on 150 such patients, and there is a very large amount of data to be analysed, but a number of features stand out:

1. This a very serious illness with a mortality rate over the next 12 months of over 25%.
2. There is no obvious rationale for why some patients are admitted from the ED and why others are sent home.
3. Progress such as length of stay, and mortality, as in-patients for those who are admitted are largely a consequence of the severity of the COPD.
4. However, prognosis in the longer term, and especially mortality rate over the next 6 and 12 months, but also readmissions rates, are much more strongly related to the frequent other smoking-related co-morbid illnesses that such patients suffer from, and especially heart disease.

Ted Harrison – For The Love of Gold



Ted handing over the “reins” to Tony

Ted is well known to the Research Foundation as a great friend and generous supporter over the years. He has been supporting the Foundation breakfasts since they started and has donated an amazing \$40,000 over that time. We wish him well in his retirement and look forward to continuing the relationship with his son, Tony.

Edward Harrison – Ted – retired to Hobart some 15 years ago, intent on getting out of the jewellery trade and opening a restaurant in Huonville. Whilst the food was great, the finances weren't and Ted soon found himself back in the jewellery trade.

Ted had initially started as an apprentice diamond mounter at 15 in England but enjoys the work here much more as he gets to do everything from gold-smithing to setting rather than be so specialised.

Ted lived in Ballarat before he saw the light and came to live in Tasmania where he opened a watch shop in Mathers Lane. The first few years were difficult but Ted comments “The people in Hobart were so welcoming and loyal” and that “I hardly ever advertise, most of the business comes from word of mouth.”

Ted is planning to retire and Tony, his son, is taking over running the business. Ted is intending to do some travelling around Australia and catch up on some gardening and reading but, as Tony said ...”No-one is going to be surprised to still see Ted here sometimes - it's impossible to imagine him retiring completely”

The Research Foundation and all the people that have won the wonderful prizes that Ted has donated over the years, wish him all the best in his retirement, may it be long and happy.

For the Love of Gold they toiled

with pick, spade, pan and hand:

*'till sweat did pour did pour from
many a brow.*

They were a tough, determined band:

for the Love of Gold

They took,

and some with aching heart

gave back far more

than taken from the land,

for the Love of Gold

It's moulded now by gentler hands

and fashioned into wedding bands

and treasures wondrous to behold,

all again - for the Love of Gold.

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2011 Motors' International Women's Day Breakfast Celebrating 100 years of International Women's Day.



Thursday 17 March 2011 saw the Research Foundation again combine with Women Tasmania to present the International Women's Day Breakfast.

Helen McCabe gave a fascinating insight into her life and the very different roles she has undertaken, from the fast-paced, hard hitting action in the press gallery to

the pressures of editing. She spoke candidly about the "ageism" that the magazine industry suffers in choosing who goes on the cover and how frustrating some of the stereotypes can be. Helen also discussed the emphasis that society places on how women politicians look rather than the work they do!

Our wonderful sponsors again rose to the occasion with sponsorship worth over \$20,000 and amazing raffle prizes



including a wonderful diamond pendant from For The Love of Gold (see story about the wonderful Ted Harrison on page 5). Our thanks to the many sponsors who may these breakfasts a reality....

Remember, the next breakfast is on Friday 6th May where Jane Bennett will be our speaker.

Donation form

Yes – I would like to contribute to the Royal Hobart Hospital Research Foundation

I/We wish to make a donation of: (please tick)

\$250 \$150 \$100 \$50 \$20 Other \$ _____

OR – I would like to become a member of the Foundation's RSVP by making a donation from my credit card (record details below) of \$ _____ every – (please tick) Month Quarter Year

All donations to the Research Foundation of \$2 and over are tax deductible.

Method of payment

Cheque Money order Visa MasterCard

Credit card number

Expiry date _____

Signature _____

Name on card _____

Address _____

Postcode _____

Daytime phone no. _____

Please send me the bequest brochure "Your lasting legacy"

Please return donation to: Reply Paid, Royal Hobart Hospital Research Foundation, GPO Box 1061, Hobart 7001



Health Update- Diabetes

Easter is a time when we tend to eat lots of chocolate and sweet buns. We thought we would have a look at what Diabetes is and offer a recipe for Hot Cross Buns from Diabetia. (www.diabetia.com)

What is diabetes?

Diabetes is a chronic disease characterised by high levels of glucose in the blood. Blood sugar levels are controlled by insulin, a hormone produced by the pancreas. Diabetes occurs when the pancreas is unable to produce enough insulin, or the body becomes resistant to insulin, or both.

There are three main types of diabetes:

- **Type 1 diabetes** is an auto-immune disease where the body's immune system attacks the insulin producing cells of the pancreas. People with type 1 diabetes cannot produce insulin and require lifelong insulin injections for survival. The disease can occur at any age, although it mostly occurs in children and young adults. Type 1 diabetes is sometimes referred to as juvenile onset diabetes or insulin dependent diabetes.
- **Type 2 diabetes** is associated with hereditary factors and lifestyle risk factors including poor diet, insufficient physical activity and overweight or obesity. People with type 2 diabetes may be able to manage their condition through lifestyle changes; however, diabetes medications or insulin injections may also be required to control blood sugar levels. Type 2 diabetes occurs mostly in people aged over 40 years old, however, the disease is also becoming increasingly prevalent in younger age groups
- **Gestational diabetes** occurs during pregnancy. The condition usually disappears once the baby is born,

however, a history of gestational diabetes increases a woman's risk of developing type 2 diabetes later in life. The condition may be managed through adopting healthy dietary and exercise habits, although diabetes medication, including insulin, may also be required to manage blood sugar levels.

How common is diabetes?

The 2007-08 National Health Survey estimated that there were 818,200 people (4% of the population) that had been diagnosed with Type 1 or 2 diabetes in Australia. The survey relies on self-reported data, and therefore the prevalence of diabetes may actually be higher, as those with undiagnosed diabetes are not included in the prevalence estimate. Of those who reported being diagnosed with diabetes, 88% reported having type 2 diabetes, 10% reported having type 1 diabetes, and 2% did not know which type of diabetes they had .

Based on self-reported data, the prevalence of diabetes in Australia is increasing; between 1995 and 2007-08 the number of people reporting to have diabetes increased from 407,900 to 818,200. This substantial increase has been attributed to more people developing the disease, but also people with diabetes living longer and improved detection of the disease.

Information courtesy of Dept. of Health and Ageing website <http://www.health.gov.au/internet/main/publishing.nsf/Content/pq-diabetes>

Hot Cross Buns recipe from Diabetia. (www.diabetia.com)



Ingredients

250g strong white bread flour
250g wholemeal bread flour
¼ tsp salt
50g sugar
1 sachet yeast
100ml milk
100ml water
75g softened butter
2 eggs
1 tsp cinnamon
1 tsp nutmeg
1 tsp mixed spice
½ tsp mace
50g raisins
50g candied peel mix

Preparation

1. Beat egg
2. Add flours, yeast, spices and sugar to a bowl
3. Boil water, add sugar and stir until dissolved, add to flour mix
4. Add milk
5. Cut up butter and mix into flour mix
6. Make a well in the centre of the flour mix, add one egg and stir in
7. Knead with hands or dough hook
8. Cover and set aside dough until well risen (this will take an hour or more, depending on room temperature)
9. Preheat oven to 230°C
10. Knead in the raisins and peel
11. Cut dough into 15-18 pieces
12. Shape into round buns and place on greased baking tray
13. Take one egg, beat well and use to baste the buns
14. Cover with cloth and leave to rise for 20-30 minutes
15. Cut a cross in the top of each bun, bake in hot oven for 10-15 minutes

Whilst the buns are baking, make a bun wash using 50g sugar and 75ml water. Boil until it looks thick and syrupy. Brush over freshly baked buns. Serve warm or halved and toasted with butter.