

QUEST

Summer 2012

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 disease.

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.



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RHH Research Foundation announces over a half million dollar investment in Tasmanian health research in 2012



Research Fellow Bruce Taylor is congratulated by CEO Heather Francis.

The Royal Hobart Hospital Research Foundation recently announced the recipients of its major research grants for 2012, providing over \$510,000 in funding for local medical and healthcare research.

The Research Foundation's Chair, Heather Chong, said the grants are designed to help emerging and highly skilled researchers to continue their careers in our local healthcare community while

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Big Breakfast delivers laughs and funds for medical research

The annual Big December Breakfast again delivered a fabulous event to cap off a wonderful 2011. As we bid the Hotel Grand Chancellor farewell (more on this later), the event was enjoyed by over 700 guests.

Welcomed by The Tasmanian Chorale singing delightful Christmas carols, the morning was off to a great start with guests catching up with old friends and new while networking with colleagues.

Thanks to our friends at ICMI, guest speaker Jean Kittson shared her humorous take on the history of medical research before launching into a journey-tale of her personal career path that took some unusual twists and turns along the way. After having the crowd in stitches, many guests were delighted with the opportunity to have a chat with Jean at the conclusion of the event.

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Research update: The Familial Haematological Malignancy study Dr Elizabeth Tegg

This study was conceived from an investigation that took place in Tasmania from 1972 to 1980. During this study all people diagnosed with a haematological malignancy (which includes diseases such as leukaemia, lymphoma and myeloma) were asked to be involved in next step research. One of the questions these participants were asked was about a family history of a haematological malignancy. It became apparent to the investigators that a lot of the participants had a positive family history of a haematological malignancy. The late Jean Panton, who was involved in the original study, was instrumental in the re-emergence of this study in familial haematological malignancies in 2006.

Dr Elizabeth Tegg is a pathologist, qualified in both haematology and genetics, also with a keen interest in research who returned to Tasmania in 2007 to work with Associate Professor Katherine Marsden, Professor Ray Lowenthal and Professor Simon Foote to undertake her PhD on investigating the underlying genetic cause of familial haematological malignancies using these Tasmanian families as the basis of her research. During this time, after receiving initial starter grants earlier in her career, Dr Tegg was awarded a Royal Hobart Hospital Research Foundation Fellowship. Initially providing funding for three years, the Foundation recognised the strength of emerging findings and has recently extended Dr Tegg's Research Fellowship for another two years.



Families with multiple cases of a disease have been used to identify the underlying genetic predisposition for many diseases that have a genetic basis by assessing the genetic makeup (genome) of the affected individual and analysing which parts the affected individuals share.

The initial part of Dr Tegg's research looked at all the families that Jean had identified (over 200) and assessing the most likely families for further study. This assessment was based on the number of people affected, the number of generations affected and whether people who were affected with the disease were still alive to contact. This process identified 13 Tasmanian families for further investigation. These families contain over 130 affected individuals. This data was published in 2010 in the British Journal of Haematology.

Dr Tegg also identified that nine of these 13 families that have at least two successive generations of people affected show "anticipation". That is, the age at diagnosis

of the affected person in each subsequent generation is statistically significantly younger. This finding was published in *Blood*, a very prestigious haematology journal in 2011. This finding and its publication in this journal generated world wide interest in this research, and stimulated researchers in Italy to investigate "anticipation" in some of their families that they had been studying to confirm this finding further. This journal publication also stimulated interest in China with Dr Tegg being invited to talk about her research at a conference in Xuzhou, China in April 2011.

Dr Tegg has received several national grants over the last few years, in particular the Haematology and Oncology Targeted Therapy (HOTT) Fellowship in 2009 from the Haematology Society of Australia and New Zealand which was used to fund a genome-wide single nucleotide array of 117 people from the 13 families to assess the regions of the genome that the affected individuals share. This

analysis was done by Dr Russell Thomson and identified three regions in the genome for further investigation, which is currently underway. During the course of this project the genetic technology has advanced and become more affordable to undertake at a local level.

Another grant from David Collins Leukaemia Foundation was awarded in 2010 to undertake whole genome sequencing of a key individual from one of the families and this has led to the potential identification of several genes in the pathogenesis of chronic lymphocytic leukaemia.

Dr Tegg was also awarded a Pfizer Australia Cancer Research grant in 2011, which has been used to fund a further three whole genome sequences of three key affected individuals from another family, which is enriched for a rare subtype of lymphoma.

Currently Dr Elizabeth Tegg works both at the Royal Hobart Hospital as a pathologist and undertakes her research as the Menzies Research Institute Tasmania, but she also contributes to undergraduate medical education as an honorary Senior Clinical Lecturer with the School of Medicine at the University of Tasmania and is also involved with post graduate education with the Royal College of Pathologists of Australasia.

The RHHRF is proud to have played a role in stimulating Dr Tegg's career in its early stages, and through the support enabled by our fundraising activities, the Foundation continues to foster this further through a significant Research Fellowship award.

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Helping us to breathe a little easier



Pictured from left: Doctor David Reid; Professor Haydn Walters and Professor Richard Wood-Baker.

The Royal Hobart Hospital Research Foundation was delighted to celebrate with the Menzies Research Institute upon the announcement of a \$2.5m NH&MRC grant to establish a Centre for Research Excellence into chronic respiratory disease and lung ageing.

At the Centre's formal launch, Chaired by our own Research Foundation's Chair, Heather Chong, attendees at the mini-symposium heard updates from researchers to be involved in the CRE, each of whom have previously achieved funding through the RHHRF grants program. Profs Haydn Walters and Richard Wood-Baker together with Dr David Reid showcased the outcomes of their work to date, but also highlighted the extensive scope for further research through the CRE. Guests noted that the new centre will focus particularly upon better understanding and management of

common airway disorders and diseases such as asthma, Cystic Fibrosis and chronic obstructive pulmonary disorder.

Noting that the RHH Research Foundation has also contributed over \$2.5million to respiratory-based research through its own local grants programs, Heather Chong welcomed the exciting announcement of formation of a national centre based at the Menzies Research Institute. Further, Heather noted that additional funding in another area had also been conveyed to the Australian Lung Foundation, establishing a new three-year partnership on the basis of successful research outcomes locally. Ms Chong explained that under a new agreement, enabled by provision of a large donation from the Sypkes family, the RHH Research Foundation had been able to leverage initial funds provided toward establishment of a local database tracking the incidence and outcomes of Idiopathic Pulmonary Fibrosis (IPF), to see establishment of a new registry which replicates the original program, but on a national basis.

The major benefit of this new project is the opportunity for new clinical and epidemiological research into the severe and progressive condition of IPF, extending the earlier pioneering work of our local Tasmanian researchers to foster national and even international collaborative efforts of research into IPF. Providing almost \$200k to this project over three years, it is expected that research outcomes from this new registry will not only aid understanding of this condition amongst medical practitioners, it will also increase awareness across the general public, enabling earlier diagnosis and potentially improved management outcomes.

The RHH Research Foundation is delighted to have this opportunity to work in collaboration with leading research partners locally and nationally, including the Menzies Research Institute and the Australian Lung Foundation, aiming to help many of us to breathe a little easier.

entertainment book gift vouchers

The Foundation will again be selling Entertainment Books – fantastic, I hear you say! Following the successful sales for the 2011/12 book, this novel way of boosting fundraising efforts has a delicious twist. The Foundation keeps a portion of the price of each book sold and you get to enjoy fabulous savings at restaurants and activities located around Tasmania (and mainland Australia in some cases). The cost of the 2012/13 Entertainment Book is \$60.

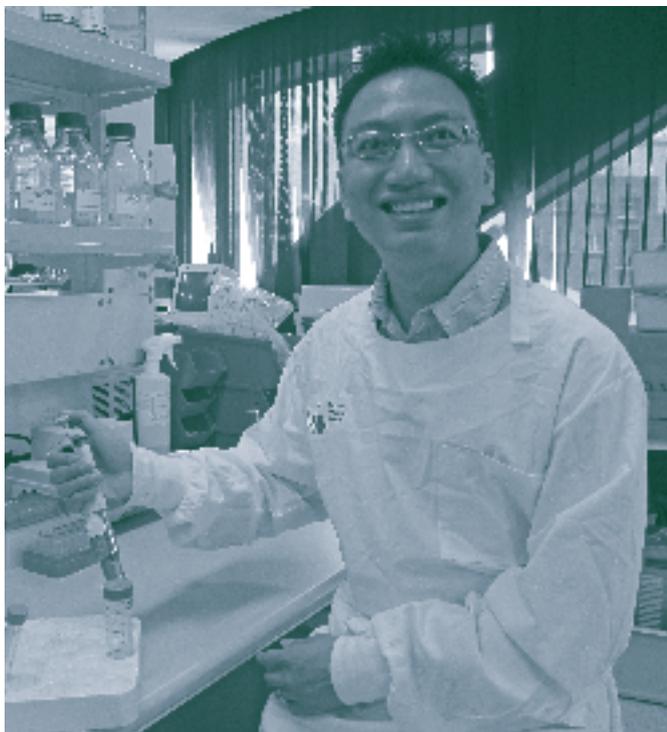
This year we are also offering gift certificates, so if you're stuck for gift ideas, why not purchase a gift certificate. This

certificate will entitle the holder to one of the very first copies when they become available in April 2012 – but may be redeemed at any time during 2012.

If you'd like to pre-order or purchase a gift certificate please contact the Foundation today on 03 6222 7049 or via email research.foundation@dhhs.tas.gov.au



Research update: The Chemical and Physical Stability of Iron Polymaltose Intravenous Infusions Mr Troy Wanandy



Mr Wanandy is a qualified pharmacist and chemist with an immense passion for pharmaceutical research. His observations in practice and a keen interest in pharmaceutical research has led to a study that is not only intuitively interesting but potentially valuable, particularly given its scope to provide significant cost efficiencies.

Iron deficiency anaemia (IDA) is the most common cause of anaemia, and affects approximately 2 billion people worldwide and 4% of the Australian population. The primary treatment options for IDA are prevention of bleeding and oral iron replacement therapy. Parenteral iron therapy is necessary in patients with IDA who are unable to tolerate or are unresponsive to oral therapy.

There are two parenteral iron preparations currently available in Australia - iron polymaltose (IPM) and iron sucrose, with the former more commonly used in clinical practice. The parenteral IPM infusion administered to the patient is prepared by diluting commercially available proprietary IPM injection with normal saline, performing this onsite in hospitals. While the proprietary formulation undergoes extensive physicochemical testing to determine its shelf-life, the physicochemical stability of IPM in the diluted solution beyond 24 hours is not known.

The Royal Hobart Hospital Pharmacy Department prepares, on average, 35 bags of IPM infusion solution each month. IPM solution is prepared in a sterile manufacturing suite by a pharmacist or a technician trained in aseptic techniques and the preparation of each infusion solution takes about

45 minutes. Due to the lack of information regarding the stability of the diluted solution, national policy recommends IPM solution be administered within 24 hours of preparation. The complex nature and sometimes urgent need for parenteral iron replacement therapy, and the short 'shelf-life' of IPM solution often puts pressure on both the treating team and the pharmacy staff, while the potential for a high degree of waste through daily disposal is also evident.

As a pharmacist, Mr Wanandy practices in both hospital and community settings. He studied Chemistry and Pharmacology at the University of Auckland and obtained Bachelor of Pharmacy at the University of Tasmania. He received his Master of Science degree from Macquarie University for his research in the area of ethnopharmacology, biologically active natural product isolation and antimicrobial assay development.

At the Royal Hobart Hospital, he holds dual roles as Quality Assurance (QA) Manager for the Jack Jumper Allergy Program and as a Pharmacist at the Pharmacy Department. In his role as the QA Manager, he oversees the manufacture and quality of Jack Jumper ant venom immunotherapy products, which are used to desensitise people who are hyper-allergic to Jack Jumper ant venom. As a pharmacist at the Pharmacy Department, he assists in the preparation and distribution of pharmaceuticals within the Royal Hobart Hospital, and contributes to undergraduate pharmacy education and research as a Clinical Associate at the School of Pharmacy, University of Tasmania.

Mr Wanandy is also a Research Associate at the Menzies Research Institute and undertakes research in the field of Pharmaceutical Sciences at the School of Pharmacy and the Centre for Clinical Research.

Through his work as a pharmacist and QA manager, Mr Wanandy saw a clear rationale to investigate the long-term stability of parenteral IPM solution, which would greatly assist with the planning and preparation of the treatment. He believes that a greater understanding of various mechanisms involved in the stability and the knowledge of free iron present in the IPM solution will maximise the safety and efficacy of this treatment modality. This could also lead to more effective utilisation of these types of preparations in clinical practice both nationally and internationally.

This research is conducted in collaboration with researchers from the University of Tasmania's School of Pharmacy (Dr Rahul Patel and Mrs Sandra Holmes) and School of Chemistry (Dr Joseph Hutchinson and Dr Cameron Johns), and also the Royal Hobart Hospital's Pharmacy Department (Mr Cameron Randall).

Continued from page 1...

The Big December Breakfast also saw the return of the ever popular auction with Joe McDevitt from L J Hooker Hobart exciting the crowd with five fabulous auction items up for grabs. After some hotly contested bidding – the lucky winners were delighted with their auction prizes.

A familiar face of former CEO Tony Reidy was invited to the stage to draw the lucky raffle winners – many of whom

were quite surprised at their luck with many saying ‘but I never win anything!’

When the final tallies were added, we were delighted to note that the event continues to be a major contributor to our fundraising efforts, generating 30% more than our Big December Breakfast in 2010 – a fantastic morning for all involved.



CEO Heather Francis, former CEO Tony Reidy and Jean Kittson at the Big December Breakfast.



Jean Kittson shared a laugh – and yes tears of laughter were spotted.



Guests packed the Hotel Grand Chancellor for yet another Big Breakfast – a great time was had by all.



The Tasmanian Chorale welcomed guests with beautiful carols to start the morning.

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*Research Foundation Chair:
Heather Chong*

also contributing to the wellbeing of the many Tasmanians who come into contact with the Royal Hobart Hospital as the state's primary public hospital.

Reflecting on outcomes of previous research funded by the RHH Research Foundation, Ms Chong observed that almost \$6m has been invested since establishment of the Foundation as a private

enterprise in 1997. She highlighted that while findings from local Tasmanian research provided the impetus to improved health and medical practices in our own local hospital, in many instances these enhancements also flowed through to a wider Australian and international medical context.

"Once again, the RHH Research Foundation has been able to provide significant funding directed to the employment of a post-doctoral Research Fellow engaged in a three year program. On this occasion the Foundation has invested in supporting the further work of Dr Bruce Taylor, allowing him to continue his ongoing investigations, pursued as a specialist neurologist within the RHH and as an academic at the Menzies Research Institute. "This funding enables Dr Taylor to maintain his work in undertaking world class research focusing on Multiple Sclerosis," Ms Chong said.

Specifically, the research funding will be utilised by Dr Taylor to continue his exploration into three principle areas: the environmental factors involved in the onset and progression of MS; the role of vitamin D in development of MS and also genetic determinants of MS risk.

Ms Chong said that this funding furthers the Research Foundation's objectives of concentrating its research efforts on diseases and conditions which, per capita, are more prevalent in Tasmania.

"All funds that underpin our research investments are raised through the outstanding support of a generous Tasmanian community. We are excited about this announcement as it allows continuing local work of an excellent researcher and clinician who is tackling a disease that remains a high priority for attention in this State", Ms Chong said.

As our supporters would no doubt know, the local research supported by the Royal Hobart Hospital Research Foundation is decided after a competitive application process, supported by rigorous peer review. The Foundation's scientific research advisory panel, which is endorsed by the NH&MRC, undertakes the determination of our research grants. "Only projects and researchers of excellence are selected to pursue their investigations," explains CEO Heather Francis.

As a completely independent entity, the RHH Research Foundation provides an important role in supporting specialist doctors, nurses and allied health professionals with emerging research interests through its annual starter grants program. These health practitioners are then able to gain further investment to extend their research work through the annual clinical grants cycle. The announcement of the Foundation's Research Fellowships provides the highest level of recognition for significant work undertaken by a member of the RHH's team, evidencing a strong collaboration through the State sector's RHH, UTas' Faculty of Health Science, the Menzies Research Institute and the private sector RHH Research Foundation.

This announcement of new grants for 2012 is in addition to \$250,000 in funds already committed by the RHH Research Foundation to ongoing healthcare research projects in Tasmania.

LJ Hooker

RHHRF launches new partnership with L J Hooker Hobart and Glenorchy

The Foundation enjoys the support of a very generous Tasmanian business community, and our success in fundraising for medical research is underpinned by that generosity.

As such, we are delighted to welcome L J Hooker Hobart and Glenorchy as sponsors for 2012.

Kindly donating RealEscapes vouchers as raffle prizes during events in 2012 – the value of the package is \$7000.

RealEscapes Certificates can be applied as a partial

payment towards the cost of accommodation in rooms and apartments at participating hotels and resorts as well as some international cruises. If you are a lucky raffle winner in 2012, you'll have over 250 four and five star resorts and international cruises to choose from, you will surely find a holiday that suits you and your family.

Want to know who else is supporting the Research Foundation? Visit our website and click on the "Our Sponsors" page – for our current supporters!

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Farewell to Marlene Ladic - a new chapter

It is with sadness that we farewell our team member Marlene Ladic after four years with the Foundation.

Over her time with the Foundation many of you will have come to know Marlene as she has contributed to the role of Administration and Events Officer, transitioning from part time to full time as the Foundation and its events have grown.

Marlene plans to move to Queensland to spend more time with her family and pursue her writing career with the launch of her memoir and a publishing tour, jetting about this great country. We wish Marlene all the best in this very exciting journey.

New faces at the Foundation

As we bid Marlene farewell, we'd like to welcome two new faces to the Foundation: Di Russell-Green and Laura Males.

Di joined the team in August 2011 as Finance and Administration Coordinator. With a broad array of experience Di has previously undertaken roles in the not for profit sector as an Executive Assistant, in reception, finance and assisting with events and raffles.



Di is looking forward to the exciting times ahead in 2012.

Laura commenced in the role of Fundraising and Events Administrator in December 2011. With a background in communications and event coordination in the not for profit sector, Laura is eager to join the Foundation and develop the all new 2012 calendar of event as outlined in this issue of QUEST.

Donation form

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

\$500 \$250 \$100 \$50 \$25 Other \$

Cheque Money order Credit card (please complete the details below)

OR – I would like to become a member of the Foundation's RSVP program by making a regular donation from my credit card.

I/We would like to donate \$ every – (please tick) Month Quarter Year

Credit card details

Credit card number

Expiry date /

Signature Name on card

Please add me to the mailing list for Foundation events and publications

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

2012 events overview



With many changes in the wings for 2012, we look forward to bringing you an excitement filled event calendar with some old favourites such as Big Breakfasts, combined with an all new lunch series.

We all know and love the bookends of our calendar, our famous Big Breakfasts, celebrating International Women's Day in March and of course Christmas in December. And we love these, so our Big Breakfasts will remain! With generous support extended by our friends at Wrest Point, we're looking forward to welcoming you to a new home in March and December 2012 where we'll offer all the very best elements of fun mornings, while adding in some exciting new aspects as we freshen up our program too.

Hotel Grand Chancellor will remain friends of the Foundation to host our inaugural Research Excellence Dinner in late March when we present our Grant recipients formally with their awards.

After feedback from many of our long term friends and corporate supporters we've made the big step of launching a monthly lunchtime series to be held at the all new Peppers Hobart. We're very excited to announce that we've found ourselves a wonderful new partner for our 2012 lunchtime series, running from April to November 2012.

With our lunch events beginning at noon, we're adding a little extra time for those who wish to arrive and network or mingle, and then it's straight into the formalities at 12.30pm, recognising the needs of those who can only spare a quick hour with us for lunch. Of course we'll still be featuring a fascinating guest speaker and have lots of fun over the fundraising events calendar with raffles, lucky spots and general frivolity.

We look forward to seeing you all during the year and we still have a couple more surprises up our sleeves - we can't wait to tell you more soon!

Save the date - Calendar of events 2012

March	International Women's Day Big Breakfast	Wrest Point
28 March	Research Excellence Dinner	Hotel Grand Chancellor
4 April	Luncheon Series	Peppers Hobart
2 May	Luncheon Series	Peppers Hobart
6 June	Luncheon Series	Peppers Hobart
4 July	Luncheon Series	Peppers Hobart
1 August	Luncheon Series	Peppers Hobart
5 September	Luncheon Series - Welcome Springtime	Tattersalls Park Function Centre
3 October	Luncheon Series	Peppers Hobart
14 November	Luncheon Series	Peppers Hobart
14 December	Big December Breakfast	Wrest Point

Please note 2012 event commencement times below:

Big Breakfasts – arrival from 6.30am commencing at 7.00am, concluding at 8.30am

Luncheons – arrival from 12noon commencing at 12.30pm, concluding at 1.30pm

Welcome Springtime – a longer lunch...