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## Flying the nest and flying high

**N**ot one but TWO of CMRI's most recent PhD graduates have just flown the nest with the highest of honours from the National Health and Medical Research Council.

Drs Tania Tsang and Simon Kinder of the Embryology Unit have been awarded the NH&MRC's Peter Doherty Post Doctoral Research Fellowship, only a handful of which are awarded each year.

The Fellowships, named after the inspirational Australian Immunologist and 1996 Nobel Laureate, provide the opportunity for "outstanding" young Australian scientists to undertake further training in Australia and amount to four years of research funding.

"For two of our students to be successful in obtaining this Fellowship in the one year is a great accolade for CMRI," says Dr Peter Jeffrey, head of Developmental Neurobiology and Postgraduate Coordinator.

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*Shown above: "Fate-mapping" in a mouse embryo - movement of green-labelled, early embryonic cells can be followed to show their contribution to final body structures. (Photograph by Simon Kinder).*



*Dr Tania Tsang with the micromanipulation apparatus that enables her to handle tiny mouse embryos.*



# Director's desk



## *A proposal for research amalgamation between CMRI and Children's Hospital Westmead*

In December 2001, the Boards of both CMRI and the Children's Hospital at Westmead ratified a Heads of Agreement whereby the research activities of both organisations could be incorporated into a single entity. Under the proposed terms of the agreement, CMRI would assume control of the assets and the management of this joint venture. It was agreed that the significant funds donated to the Hospital for research purposes would be applied to the construction of additional research space which would be incorporated into, and constitute an extension of, the current CMRI building. This proposal has a great deal of merit in terms of consolidating the research activities on the Westmead campus, creating a more significant critical mass of scientific staff, economies of scale in administration and purchasing, and easier access to the sophisticated tools of modern biomedical research.

It is, however, recognised that bringing this to fruition faces a significant number of problems that will have to be resolved in detailed negotiations. The most critical issue is whether the State Government will permit the allocation of governmental resources to the control and administration of the CMRI, an independent research institute incorporated under the Companies Act. The governmental decision will be pivotal in determining the ultimate nature of a relationship agreement.

*Whatever decision is finally reached, however, the CMRI will continue to maintain its independent operational status and there will be no negative impact on our research programmes, our fundraising activities and most importantly on our relationship with the community groups who have supported our goals over the past 40 years.*

I feel it is important to present this summary at this time, as many of our supporters have expressed some concern about our future based on the fragmentary information they have been given.

2002 promises to be a busy year!

Professor Peter Rowe

## a good vintage for CMRI

Described by the owners as a "vineyard blessed by nature", Kells Creek Vineyard, located near Mittagong in the Southern Highlands of NSW, has launched its first vintage with three outstanding wines; the delightfully fresh Chardonnay Premier Vintage 2001, the tantalising Sauvignon Blanc Premier Vintage 2001 and the very special Chloe's Red Premier Vintage 2000.

But Kells Creek is proving far more than just a source of what have already been commended as "sublime cool climate wines". It is also a source of vintage generosity.

From the beginning, owners Eric Priebee and Gaby Barfield

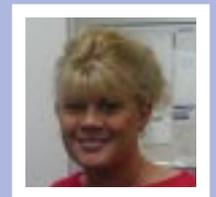
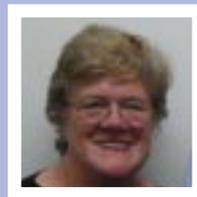
decided that each year they would do something special for a children's charity. So from the sale of every bottle of Chloe's Red, named after their eldest daughter, a donation of \$1.00 will be made to CMRI.

This was Chloe's suggestion. Her parents were delighted to oblige and CMRI is very grateful to the family.



The Grand Opening of Kells Creek Vineyards, to be held on 9 March, has also been dedicated to CMRI.

If you would like to visit Kells Creek Vineyard or learn more about their wines visit [www.kells creek vineyards.com.au](http://www.kells creek vineyards.com.au) or call Gaby or Eric on (02) 4878 5096.



## For ART's sake

Janys Allan's grandson was only eight years old when he was diagnosed with acute myeloid leukaemia. He died within 15 weeks of the diagnosis. Janys and her daughter Penny, Daniel's mother, were determined to do something to prevent this happening to other children and in memory of Daniel's battle began the Daniel Allan Remembrance Trust. After visiting the CMRI in 1998, the family knew basic research was the way to find a cure and have been tireless in raising funds for Dr Reddel's Cancer Research group ever since.

Tragically, Penny was diagnosed with stomach cancer in August last year and died within eight weeks. This double tragedy has taken its toll, but the Allan family is now even more resolved than ever to raise funds for cancer research under the new name of the Allan Research Trust (ART).

CMRI would like to take this opportunity to thank the Allan family, and Janys in particular, for their tenacity and passion for this worthy cause. They have made, and continue to make, an extremely valuable contribution to our Cancer Research programme.

*Above left to right: Janys Allan, Dr Roger Reddel and Tina Allan.*



**Trained by world-leading embryologist, Dr Patrick Tam, Simon and Tania both have an outstanding list of publications generated during their PhD studies and possess unique skills in the microscopic manipulation of tiny mouse embryos.**

## Flying the nest and flying high

Drs Kinder and Tsang worked closely together during their studies into the very early stage of embryo development called gastrulation when the first rudimentary body plan is mapped out. This plan lays the groundwork for the more detailed development of the body's tissues and organs. Now they are moving on to study these later stages of development with experts who are at the leading edge of their respective developmental biology fields.

Simon left for the University of Queensland late last year to work with Associate Professor Brian Key, an expert in the route finding skills of neurons in the developing brain. Simon will investigate the role certain genes play in keeping neurons on track while they extend their long axons to make contact with other neurons. "The aim is to understand the molecular processes that occur during normal brain formation and also learn how we might harness this knowledge to help nerves regenerate after injury," says Simon.

Tania leaves CMRI this month to join the laboratory of Dr Sally Dunwoodie at the Victor Chang Cardiac Research Institute in Sydney. Dr Dunwoodie is a highly respected embryologist and herself

a former PhD graduate from CMRI. She discovered several new genes that are active during mouse embryo development including in the heart.

Tania will use her skills to help establish which genes are most important in the development of the heart. They hope eventually to find the key to encourage unspecialised embryonic stem cells to become heart cells in the laboratory culture dish. "If we can work out which genes switch on the programme for heart development then maybe in the future we can use embryonic cells to repair damaged adult hearts which cannot repair themselves," says Tania.

Dr Patrick Tam has high praise for Simon and Tania and believes they are worthy recipients of the Peter Doherty Fellowships. "They often worked as a pair, complementing each other's expertise and worked together very harmoniously and productively," says Dr Tam. "They have indeed set an excellent example of how science may flourish through sharing and collaboration."

*Pictured above: Dr Simon Kinder at work in the Embryology Unit.*

## Doctor, Doctor

Also flying the nest this month are Timothy Tan of the Cell Signalling Unit, Kenneth Soo of Embryology and Katherine Jeffrey of Cancer Research who are returning to the University of Sydney to undertake their Medical training after completing three years of PhD studies.



While Katherine will be starting her Medical degree from the beginning, Timothy and Kenneth are on a Combined Degree programme and had completed two preliminary years of Medicine prior to commencing their PhD research. They will now complete the final two years of clinical training.

Leila Haddadi is also heading for the University of Sydney Medical School after completing her honours year research studies in the Muscle Development Unit at CMRI and receiving a first class Honours degree in Medical Science.

All four have made excellent contributions to CMRI's research programmes and we wish them the best of luck in the next stage of their careers.

*Pictured left to right: Katherine, Tim and Ken.*



## Jazz in the Mountains

Following the fantastic success of the Jazz in the Mountains concert held in the magnificent grounds of 'Bisley' at Mount Wilson in 2001, the Rotary Club of Beecroft will again host the event in April 2002.

Rarely open to the public, these beautiful gardens will be at their peak with glowing autumn colours. Come and listen to a fantastic day of jazz and take the opportunity to enjoy the gardens.

Bring a picnic or enjoy the delicious food and drink stalls on site. Or to order a hamper in advance call 9868 2713. Featuring: ZOOO International Big Band, Denis Langley Quartet, Dan Barnett & Friends with Carol Ralph and the Zenith New Orleans Jazz Band.

Sunday 28 April 11am to 4pm (gates open 10am). Plenty of parking available.

Tickets \$30 (Children under 16 free). Order through Ticketek (02) 9266 4800, [www.ticketek.com](http://www.ticketek.com)

Grateful thanks to major sponsor Autohaus Classic BMW. All proceeds to the Children's Medical Research Institute.



## Taking a healthy interest

In an acknowledgement of the key role research plays in promoting better health, the New South Wales Minister for Health, Craig Knowles, followed through on his interest to meet those at the cutting edge of research in the state, visiting the Children's Medical Research Institute in November 2001.

Mr Knowles said that the NSW Government is keen to maximise the potential of the mass of research expertise on the Westmead campus. He intends to do everything he can to help strengthen relationships and research activities between the four organisations that comprise the Westmead Research Hub (CMRI, Children's Hospital Westmead, Westmead Hospital and Westmead Millennium Institute). During Mr Knowles' visit CMRI's Director, Professor Peter Rowe, guided the Minister through laboratories that have been the centre of some major discoveries and introduced him to laboratory heads and research staff.

*Pictured: NSW Health Minister Craig Knowles with Embryology Research Assistant Melinda Hayward and Professor Peter Rowe.*

*(Photo courtesy of Blacktown Sun).*

## Jeans for Genes®

### Friday 2 August 2002 – *Lookin' good, baby!*

The 2001 Jeans for Genes® campaign has so far banked very close to \$3.5 million. What a splendid result! So an enormous thank you goes to all those people who were Genies and who collected money on our behalf.

We are well underway with our plans for 2002. We have some new badges and our new baby image is just so cute. Our \$10 badges were popular last year (in fact we sold out). This year we have two new designs: artist James Willebrant on Michael Klim and Esther Erlich on Sandra Bullock - one Australian and one international celebrity from our Jeans Art Auction designs.

We also have our \$5 double helix badge, a nifty little \$2 badge and a very special run of \$20 badges with the work of artist David Boyd on Nikki Webster's jeans. These new \$20 badges will be beautifully packaged and only available pre-paid through the CMRI. They are quite beautiful and definitely a collector's item.



We have a new format for our art auction this year. Our celebrity jeans will be more accessible to the general public through a variety of fun promotions, so our art auction will now contain original, specifically themed artworks from several of our leading artists – Judith White, James Willebrant, Euan Mcleod and many others. These art works will be toured to the Gold Coast and Melbourne before being finally auctioned at the Art Gallery of New South Wales on 4 July with a formal dinner and private viewing of the Archibald Exhibition.

It's going to be a very busy and very exciting year. We will be attempting to meet many of our Genies around the country again this year, a most rewarding activity! Thank you all for your commitment to Jeans for Genes®. We are so very proud of the work of our scientists, and the J4G team knows you are too.

*Clockwise from above: The new \$10 badges - Esther Erlich on Sandra Bullock, James Willebrant on Michael Klim and the new \$5 and \$2 badges.*

The latest addition to the Embryology Unit's workforce is an automated machine that will take the drudgery out of a complex technique and speed up progress. The robot, called InsituPro, is programmed to carry out a technique called In Situ Hybridisation (ISH).



Kirsten Steiner loads up the new InsituPro robot ready for its first experiment.

# Robot is latest staff member!

ISH enables scientists to identify which cells in an organism have switched on certain genes. An active gene produces what is essentially a photocopy of itself, a molecule closely related to DNA, called RNA. RNA is the template that the cell then uses to manufacture a protein. Coloured probes can be synthesised in the laboratory that recognise and stick to the RNA copy in the cell, giving a visual picture of where the gene is active.

"ISH is a really useful technique but is very labour intensive as it involves transferring the samples between many different solutions over 3 days," says Dr David Loebel of the Embryology Unit. "The new machine will do all of this for us, freeing us up to work on other experiments that require our full attention."

This will become more important as the group gets deeper into their work to identify new genes involved in embryo development.

David is currently screening so-called libraries of thousands of genes in a test tube, hunting for the ones that are key to different stages of development. "When we think we have found important genes, ISH will be vital to confirm where and when the genes are switched on in mouse embryos. This may mean doing hundreds of In Situs just to find one real candidate gene," says Dr Loebel.

Kirsten Steiner who does much of the ISH work in the laboratory is very pleased with the latest lab member, "Manually we can handle 18 tubes in 3 days – the new machine can do 96 samples in one two-day run. So when then the machine is running at full capacity we should be able to do 288 samples per week with only the minimum amount of effort on our part!"

The purchase of the InsituPro at a cost of \$100,000, was made possible by the generosity of CMRI's many friends and supporters.



## Prevention is better than cure...

And the key to prevention lies in research. It's as simple as that!

There are over 10,000 known genetic disorders. To correct these and many other disorders research is needed to find the causes.

Here is my gift:

\$100     \$75     \$50     \$25

Other \$

Please find enclosed my cheque

Please charge my credit card:

credit card number

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cardholder's signature

expiry date

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Please send me:

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- Information on my nearest fundraising committee
- An annual report
- Information on how to make a bequest
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All donations are tax deductible



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Please complete the Credit Card Details at left.

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Please complete this coupon, enclose it with your donation in the envelope provided and mail to:

Children's Medical Research Institute  
 Locked Bag 23, Wentworthville NSW 2145 Australia  
 Tel 02 9687 2800 Fax 02 9893 9166

Thanks for your help.



*Clockwise from left:*

*Members of the Brabrook and Larkin families enjoying Tamworth Carols;*

*Wellington Quota Club president Val Anderson and member Mavis Todd admire the raffle prize, a hat donated by Gai Waterhouse;*

*Trinity's Swim-a-Thon success, left to right, Mr James Leckie, Mrs Nita Trollope and Mrs Sue Negoescu (Strathfield Committee), Jennifer Philps, Jesse Pittard (Swimming Vice Captain) and Brett Owens (Captain);*

*Sir Lorimer Dods at the PeopleScape in Canberra.*



### **Gerringong Quilt Show**

Margaret Weir and the Committee surpassed themselves once again showcasing the talent that abounds in the quilting community.

### **Hold your Horses**

The Quota Club of Wellington held a fun-filled evening on 2 November as a precursor to Melbourne Cup Day. The glamour, excitement, laughter and excellent dinner paid tribute to the clever organisation by the Club members.

### **Circular Keys Chorus**

Thank you to the delightfully entertaining ladies barbershop singers, Circular Keys, for the donation to the CMRI after their highly successful concert 'The Best of Times' held at Castle Hill RSL.

### **Trinity Grammar - Water sports**

The boys of Sydney's Trinity Grammar School dived in at the deep end to help out the CMRI with a 24hr non-stop Swim-a-Thon. The Strathfield Committee's past president Jennifer Leckie is mother of Sports master James Leckie. James, and his swimming team organised the Swim-a-Thon and invited Strathfield Committee members and Jennifer Philps of CMRI along to collect the cheque.



# Fundraising Fun

## **Dates for your Diary**

### **Strathfield Luncheon**

At State Parliament House with guest speaker Dr Roger Reddel of the CMRI Cancer Research Unit and NSW Cancer Council Bicentennial Fellow. 13 March 2002 12pm, \$65.

### **Griffith Rose Luncheon**

Enjoy the spectacle of thousands of roses and be entertained by Jeannie Little at this very popular event. Bagtown Inn, Griffith, 4 April 2002 12pm.

### **Ku-ring-gai Committee**

Special luncheon at Killara Golf Club with guest speaker Sally Loane, ABC Radio personality. 9 March 11.30am, \$65.

Contact Jennifer Philps at CMRI for details of all events.

## **Tamworth**

Described as "a sea of glowing candles and the hum of many voices in harmony," Tamworth's Carols by Candlelight was a marvellous event. Carols were led by local Country singer Felicity, Country Guitarist Glen Hannah and radio announcer Mike Rayson.

### **"Let's light up"**

Alison Elms of Gosford encouraged the entire street to decorate their homes at Christmas time and with the help of the Girl Guides, Gosford Pipe Band and local singers created a warm and glowing spirit of Christmas. Visitors' generous donations were collected and the money raised will go to purchase a refrigerated centrifuge for the Institute. Thank you for this wonderful initiative!

### **Honouring Sir Lorimer Dods**

Allambie committee and artist Robyn Chadwick produced a "cut-out" of CMRI founder Sir Lorimer Dods for the PeopleScape held in Canberra as part of the Centenary Celebrations. Australians were invited to nominate someone whom they felt had significantly affected their lives, their community or their country.

### **Hills Committee**

The Christmas Fair at Castle Hill House was a popular event, providing the opportunity to buy exquisite gifts and enjoy tours of the beautifully restored home. Members of the Baptist Redeemer Church provided a delicious tea and carol singing.

### **Wagga Wagga Fair**

The popularity of the Fair increases year by year, enticing visitors from as far afield as Sydney and Melbourne to buy gifts for Christmas. Thank you to all the committee members for another excellent year.

### **Mudgee**

A balmy evening heralded the 'Magic Of Christmas' under the stars at the Showground in Mudgee. Goodies galore and a splendid supper ensured a very enjoyable and successful evening.

