

under the microscope

2 Twisted Tail

3 Genetic Insight

4 Jeans for Genes

6 Committee Power

GIVE GENE-EROUSLY

Julia Cagnet with son Cameron modelling this year's campaign T-Shirt. Cameron was born on Jeans for Genes Day in 1999



Friday
August 4
2006

Jeans for
Genes® Day

On Friday August 4 2006 we will once again be asking the Australian public to put away their suits, uniforms, skirts and pants and to take out their jeans in support of the Children's Medical Research Institute. Now in its thirteenth year the day just seems to be getting bigger and better. In total, almost \$35 million has now been raised, which has helped the scientists at CMRI to continue their much-needed work. Jeans for Genes Day is all about community spirit and the event has been so successful because the Australian public understand that research into genetic diseases in children is important for the lives of future generations.

Continued page 4



CMRI



Jeans for Genes®

Produced by the Fundraising & Community Relations Department, Children's Medical Research Institute
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Director's desk



In early March the NSW Ministry for Science and Medical Research, headed by Minister Frank Sartor, was engulfed by the Department of State and Regional Development and the research community lost the services of Professor Mick Reid,

the Ministry's former Director General. Professor Reid had an intimate knowledge of the workings of the medical research community and was a strong advocate on our behalf at a time when medical research faces an uncertain future in NSW. While the lack of research infrastructure is an increasing problem, the level of funding has not been augmented for the upcoming 2006-2008 triennium.

There is also an urgent need for a significant input into capital expenditure where NSW is falling further behind the other States. The recent announcement of a \$230 million investment in medical research by the Victorian Government much of which has already been matched by Federal Government and philanthropic funds, only serves to highlight the problem we face in this State while attempting to maintain internationally competitive standards with diminishing resources.

Recent surveys on biomedical research conducted by the Cancer Institute of NSW and the research ministry emphasise the inability to attract skilled scientists to Sydney in particular. At least some recognition is being given to the self-evident fact that Sydney is an expensive city and when coupled to this relative lack of research resources, young scientists simply will not elect to come here.

The Cancer Institute, an initiative of the Ministry of Science, has, after an uncertain start, been effective in focusing attention on cancer research and represents a real effort to coordinate and develop our research effort and the careers of younger scientists. The CMRI has been able to attract significant funding from the Institute both for career development, equipment and most importantly for establishing the new Cell Transformation Unit headed by Professor Antony Braithwaite.

A number of the studies described in this issue have involved talented young members of staff at the onset of their careers. We can only hope that some of them will return here after gaining broader experiences elsewhere.

Professor Peter Rowe

A Twist in the Tail

Normal cells divide a finite number of times and then die: part of a natural control process to stop cells from multiplying uncontrollably and forming cancers. PhD student Liana Oganessian, in the Cell Biology Unit, has just discovered a new and unexpected level of complexity in one of the mechanisms that allows cells to continue dividing.

This finding is important for scientists interested in the control of cell growth and may also be valuable in the design of future cancer drugs designed to limit cell division in abnormal cells.

In normal cells the ends of the chromosomes, called telomeres, progressively shorten until they become critically short and the cells stop dividing. One of the mechanisms cancer cells use to maintain their telomeres and avoid death is an enzyme called telomerase, which adds more DNA to the telomeres.

In contrast to most DNA in the cell, which consists of two strands - the well-known double-helix structure, telomeric DNA has the potential to fold into four-stranded structures called G-quadruplexes. These structures can form either within the same telomere (the end of the chromosome folds back on itself) or between neighbouring chromosome ends.

Previously, it was believed that telomerase could not extend telomeres that were folded into G-quadruplexes. It was thought that the folding of the telomere could be one way that the cell controls telomerase action.

In collaboration with Dr Michael Jarstfer at the University of North Carolina, Liana found that telomerase is indeed unable to extend a certain subclass of G-quadruplexes, the folded-back variety, unless the DNA spontaneously unfolds itself. To her surprise, however, telomerase was able to bind to and extend the type of G-quadruplex that forms between two different telomeres.

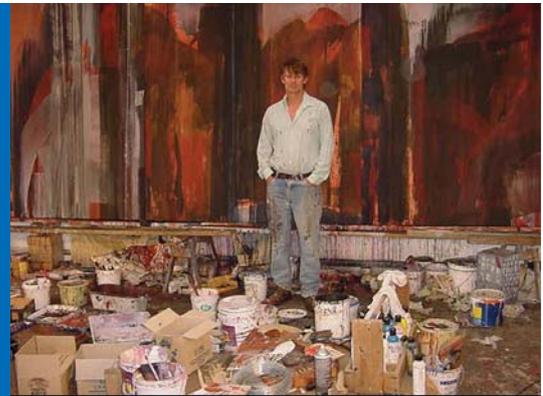
"This is an important finding because it tells scientists that the mechanism for maintaining telomeres is more complicated than previously thought," says Dr Tracy Bryan, Head of the Cell Biology Unit. "It also has implications for understanding the way in which a class of proposed anti-cancer drugs act. These drugs have been designed to stabilise G-quadruplex formation in order to block telomerase."

Liana Oganessian busy loading a gel in the Cancer Biology Unit





Mortalin Matters



Local and international artist Angus Nivison at work in the jeans he has donated

Chris Willcock, Dr Robyn Jamieson and Marija Mihelec of the Eye Genetics Research Group

Genetic Insight

Patients with eye diseases can often be difficult to diagnose, due to variation in the disease characteristics. If a condition is inherited, however, and the genetic cause can be identified; the gene responsible can be used to learn more about the disease.

In a recent article, scientist Chris Willcock of the Eye Genetics Research Group describes a particular change in the appearance of the iris and shows that this can be an indicator of a genetic eye disorder called aniridia.

Aniridia is a dominant genetic disease, which means that for a parent with this condition there is a 1 in 2 chance for each child that the genetic abnormality causing the disease will be passed on. Aniridia has been linked to changes in the PAX6 gene, and it usually results in visual disability associated with the complete or partial loss of the iris in patients.

Chris's research has shown that a subtle change in the region between the iris and the pupil is also linked to this condition. This change creates a ragged look to the pupil. Chris also identified a gene change in the PAX6 gene of these patients, demonstrating that the unusual appearance of the iris is associated with aniridia.

"It is important that ophthalmologists are aware that this alteration in the appearance of the iris can be predictive of a genetic disease," says Dr Robyn Jamieson, Head of the Eye Genetics Research Group. "Especially since this disease is inherited in a dominant fashion."

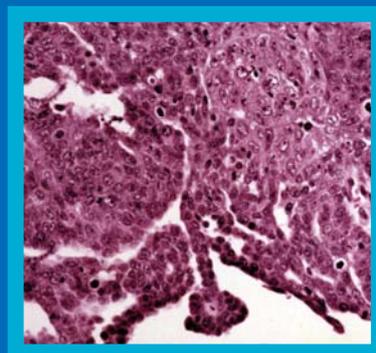
A protein called mortalin is normally involved in the control of cell proliferation and in a healthy cell's response to stress. The Cancer Research Unit, headed by Dr Roger Reddel, has been studying mortalin in a long-standing collaborative project with researchers in Japan and other international scientists.

One important property of mortalin is its ability to bind to a key protein called p53, thereby inactivating it. The p53 protein normally functions to prevent cancer by instructing cells to stop proliferating, or to destroy themselves, if they have become damaged and at risk of becoming cancerous.

In this report, many tumour samples and tumour cells grown in culture were found to have elevated levels of mortalin protein. This suggested that this excess protein might bind to the p53 protein, inhibiting tumour suppression activity and enabling the tumour cells to undergo uncontrolled cell growth.

Mice were injected with cells that were forced to express lots of mortalin protein molecules. When these cells were injected, all of the mice developed tumours, whereas mice with cells that did not produce excess mortalin remained tumour-free.

"Mortalin could, therefore, be a useful clinical marker for more aggressive disease. New treatments could also be designed to block the interaction between mortalin and the p53 tumour suppressor protein," says Dr Reddel.



Cancer cells forming a tumour

Art Exhibition supporting CMRI Scientific Research

Please support a fabulous and unique "Moving Art Exhibition and Auction" showcasing the work of 300 emerging artists.

The exhibition will be touring through rural NSW on the following dates:

Glen Innes: The Town Hall, Grey Street. May 26-28. To be opened by local and international artist, **Angus Nivison**, May 25 5.30pm.

Inverell: Inverell Art Gallery, 5 Evans Street. June 3-4. To be opened by artist **Kerry Cannon**, June 1 5.30pm.

Gunnedah: Creative Arts Centre, Chandos Street. June 9-11. To be opened by the **Hon John Anderson**, MP Gwyder June 8 6.00pm.

Tamworth: Tamworth Regional Gallery, Peel Street. June 16-18. To be opened by the **Hon Mr Peter Collins** former Minister for the Arts, June 15 6.00pm. **All profits will be donated to the CMRI.**

Armidale: New England Regional Art Museum, Kentucky Street. June 23-29. **AUCTION**, June 30 6.00pm. **A**

percentage of the proceeds will support the CMRI. For further details: contact Tricia Donovan on 0427 220 017 or visit: www.movingart.org.au

100% gene-ius

Events around Australia

Continued from page 1

This year we have a number of exciting events and we hope you will be able to attend one or all of them.

Music is better than Sport . . . or is it?

This celebrity debate will be held on Wednesday May 31 at the Sydney Conservatorium of Music and will be followed by supper, to be served at the Royal Automobile Club of Australia (RACA).

Celebrity speakers will match their wits against their opponents with Master of Ceremonies Jonathan Biggins and Adjudicator Peter Fenton

1. Richard Gill OAM Musicologist and Conductor
2. Mystery Guest
3. Simon Tedeschi Award Winning Pianist
4. Jane Rutter Flautist

Versus

5. David Brockhoff Former Wallaby Captain and Coach
6. Gordon Bray Channel Seven Sports
7. Greg Matthews Cricket NSW
8. Sally Loane Radio Journalist

Tickets are \$95 per person or \$90 per person for group bookings of over eight people, includes all entertainment, sumptuous supper and beverages.

Bookings through the RACA, 02 8273 2319 or City Recital Hall, 02 8256 2222.



"Jamm for Genes™" will take place at music venues throughout Australia on the night of Jeans for Genes Day (Friday August 4 2006). Music historian Glenn A. Baker has agreed to be the patron for the event and every attendee will be asked to pop a donation in the "Jamm Jars", which will be at each venue. For your local "Jamm for Genes" venue or to find out how you can get involved in "Jamm for Genes" at school or at work, please go to www.jamm4genes.com.au



Our "Do it with Denim™" competition is going from strength to strength with hundreds of fashion design students from around Australia taking part in this unique event. Each student has to design an outfit made out of used denim jeans, with the theme "Great Australians." Fashion parades will be hosted by a number of colleges at Westfields throughout Australia, with major parades at Westfield Miranda on Saturday July 29 2006. The winner will be announced at the Jeans for Genes Art Auction and will win over \$4000 in prizes. For more information visit: www.jeans4genes.com.au/events



Sniff out a fun box of Kimberly-Clark Australia DENIM tissues. Available nationally July and August only. Kimberly-Clark Australia, a partner of Jeans for Genes, has donated over \$150,000 towards our research into genetic diseases in children.

 Kimberly-Clark Australia Pty. Limited



Diesel wearing a Jeans for Genes ring;



Mink wearing a Jeans for Genes singlet designed by Charlie Brown.

Jeans for Genes Art Auction

This year's Jeans for Genes Art Auction will be held on Thursday July 20 2006 at the Sofitel Wentworth Sydney. The theme is "Aussie Gene-ius" with all of the Jeans being donated by great Australians. Personally signed jeans which have been donated include: Nicole Kidman, Hugh Jackman, Elle Macpherson, Megan Gale, Harry Seidler, Smoky Dawson, The Wiggles, Peter Brock, Grant Hackett, Layne Beachley and Tina Arena to name a few.



Tickets to this unique and exciting event are \$240 (p.p.) or \$3000 for a "Platinum" table (10 guests). The night will include a 3 course dinner, beverages, opening fashion parade, live auction of jeans, silent auction and raffles, plus fabulous music and dancing. To book your table, contact Kelly Morgan 02 9687 2800. More details: jeans4genes.com.au/events

This event is proudly supported by

The
Leading Hotels
of the World, Ltd.
An  Company

Merchandise

This year's Jeans for Genes T-Shirts and merchandise are better than ever. The styles are so . . . tomorrow you'll want to buy them all. A number of well-known Australian celebrities kindly donated their time to model the T-shirts, including actors Alex Dimitriades and Susie Porter, who were happy to support such a great cause. To order visit: www.jeans4genes.com.au and click merchandise.

The picture in the "O" on the front cover depicts the 2006 \$5 badge with jewels.



Committee Power

COMMITTEES

Kangaroo Valley Committee

The fabulous twentieth “**November Melbourne Cup Luncheon**” was a huge success, with lots of hats, champagne flutes and a fine lunch enjoyed by all, including CMRI’s Stephen Ryall.

Racquet Committee

A fabulous “**Card Day and Luncheon**”, was enjoyed by over 100 avid card players at the St. Ives Bowling Club on Monday 20 March. Our Racquet Club Committee ladies raised a staggering \$5,000.

Vaucluse Committee

With glorious weather and a host of competitive players the **Tennis Day** on Sunday 26 March was a memorable event. Those who did not make it to the courts were able to enjoy a fine lunch at “Fairwater”, overlooking the harbour. The winners were Phillip King and Helen Borthwick.

Mudgee Committee

Forty years of dedicated fundraising were celebrated in true country style at the **Mudgee 40th Birthday Luncheon** on Sunday 2 April 2006 in the gardens of James and Elizabeth Loneragan. The committee excelled themselves with their country cuisine. Professor Rowe and his wife Joanne were guests of honour and many anecdotes were exchanged from 40 years of fundraising.

OTHER SUPPORTERS

Corporate generosity is alive and well at **Hunter Hall Investment Management**. Stephen Ryall was delighted to accept a substantial cheque from their charity giving program.

Aneta and Zach Dimovska of **Astute Mortgages** chose the Children’s Medical Research Institute as their charity of choice for this year. At the company’s annual cocktail party, Aneta said, “Children’s causes are near and dear to our hearts.”

The completion of the **McQuade Oval Heritage Picket Fence** was celebrated by the **Rotary Club of Windsor** on Wednesday 15 March. Jennifer Philips, from the CMRI, gratefully accepted a cheque for \$5,000 for CMRI research.

Kids for Life staged a “**Black and Sparkle Ball**” on Saturday 25 March 2006 at the Hordern Pavilion. Over 700 guests enjoyed a fantastic evening, which raised \$300,000.

Mrs Dorothy Downing started the **Purple Patch Craft Group** in Eastwood 35 years ago, to provide a place for people to meet and share their love of craft. Dorothy, president for 35 years, now 92 years of age has closed the group and we are very grateful for her spirited support.



Clockwise from far left:

President George Howe with long term member Doris Blinman. Photograph courtesy of Alex Arnold of the South Coast Register;

Executive Chairman Peter Hall and Chairman Suzie Daniel with CMRI’s Stephen Ryall;

James Loneragan and Joanne Rowe at the “Heaton Lodge” luncheon;

Aneta, Zach and son Cameron Dimovska at the annual Astute Mortgages Cocktail Party;

Professor Phil Robinson of CMRI speaking at the Kids for Life “Black and Sparkle Ball”. Photograph courtesy of Matthias Engesser of Mango Photography;

Kath Irvine, Jennifer Philips and Dorothy Downing.

Dates for your Diary

Lakkariba Committee

Enjoy a sumptuous 3 course gourmet festive dinner, at the **Christmas in July Charity Ball**, Saturday 15 July. With dancing and entertainment, in the grounds of the historic Government House in Parramatta. Tickets are \$100. Contact Michelle Lee 02 9625 3838.

Kuring-gai Committee

Jeans for Genes Annual Luncheon with a special guest speaker – pick up some early Christmas gifts at the market stalls. Wednesday 2 August at Roseville Golf Club. Contact Janie Gilmore 0418 237 348.

Thumbelina Committee

Pick up your chopsticks and hurry down to “A Chinese Banquet” on Saturday 2 August at the Greenwood Seafood Restaurant, North Sydney. The winner of ‘A Taste of the Orient’ grand raffle prize, the trip of a life-time to Hong Kong and Shanghai, will be announced. Buy your tickets now. Contact Lesley Pitts 02 9417 1160.

