

under the microscope

2 Bright minds

3 Cell secrets

4 Jeans for Genes Day

6 Committee Power



Photo courtesy Peter Brew Bevan

Go on... "Get in on the Act!"

This year **Jeans for Genes Day** is on **Friday, 6 August**. Everyone at the Children's Medical Research Institute is extremely excited about the campaign. The theme for the year is *Music LEGends* with celebrity musicians from all over the world, demonstrating their support for Jeans for Genes Day. It's a line-up that tops the charts!

Leading the bill is Delta Goodrem whose jeans are portrayed on the \$10 badge. Other supporters include musicians such as Sandrine (pictured) who donated her time with Thirsty Merc, Selwyn, Kyle, Hayden Tee and Harper to take part in the 2004 merchandise photo shoot earlier in the year.

International musicians who have donated their personally signed jeans for this year's dinner auction to be held 22 July 2004 include: Mick Jagger, Tom Jones, Dame Shirley Bassey, Burt Bacharach, Dolly Parton, Angry Anderson and Jimmy Barnes, just to name a few. The Dinner Auction will take place at the Sydney Convention Centre at Darling Harbour and entertainment for the night will include the legend himself, Kamahl and Cosima De Vito from Australian Idol.

Channel 7 stars have once again offered their generous support by modelling our T-Shirts, cap and bag for our groovy 2004 catalogue. Acclaimed street wear designer Jeremy Andrew has donated his talents to come up with the coolest gear in town.

This year with help of our Genies, Jeans for Genes Day will rock! So, go on... "Get in on the Act" and support our scientists of today to help our children of tomorrow.

Continued Page 4



Director's desk



The report, entitled NSW Research Prescription for Health arising from a review commissioned by the Minister for Science and Medical Research, the Hon. Frank Sartor was released in March 2004.

The review, conducted by Mr G S Wood, Professor Judith Whitworth and Dr George Morstyn, covered most aspects of biomedical and clinical research. While most of the information was not new, a thorough analysis of research expenditure in NSW highlighted the deficiencies and inadequacies of resources in the State when compared with that situation in Victoria and Queensland. The report also contained a number of thoughtful recommendations, some of which the research community would hope will be taken up by the State Government. The committee, however, failed to address one of the major problems faced in NSW and in Sydney particularly, and that is the cost of being here, which is often a major factor in our capacity of attracting and retaining our best young scientists. Until we can achieve realistic pay scales it will be difficult to develop first-rate research programs.

March was also the month for the release of a series of reports by the Federal Government analysing the state of various aspects of research and training funding Australia-wide. While the overall view of these reports suggested that there was little wrong with the system that could not be solved by additional funding, specific issues relating to the critical infrastructure funding for the independent research institutes were not resolved. It is hoped that continued interaction between the Department of Education, Science and Training will resolve some of the outstanding issues. The Commonwealth Government Budget for 2004-2005 could prove to be very interesting for the research community.

Professor Peter Rowe



Chun Gan and Dr Iain Duggin, join the Cell Signalling Research Group at CMRI

Bright minds, fresh ideas, top research

CMRI has seen an influx of new faces and brilliant minds in the last two months. We welcome these newcomers to the organisation and look forward to seeing the progress of their research.

The Cell Signalling Unit has been joined by Research Officer Iain Duggin and PhD student and Registered Pharmacist Chun Gan. Both Dr Duggin and Chun have come from the Department of Pharmacy at the University of Sydney to work on a collaborative project. The focus of their research is the Ral-signalling protein. Ral is involved in cell-to-cell communication and cell polarity. Dr Duggin explains, "The Ral protein works on the inside of cells as a biological switch, allowing signals from the outside of the cell to turn on machinery inside the cell."

Roger Reddel and his team in the Cancer Unit are joined by Honours student Akira Nguyen. To add to her Bachelor of Medical Science, Akira's year long project will involve studying stanniocalcin, a gene discovered by the Cancer Unit in 1995. Stanniocalcin in fish is a hormone which controls calcium levels. Its role in humans is as yet unknown but it is thought to be involved in the reaction of normal cells to damage and in the growth of various cancers.

The Embryology Unit is joined by four new faces; honours student Ashley Haywood, PhD student Marija Mihelec and Research Officers Renuka Rao and Samara Lewis. Ashley and Marija are studying eye abnormalities with the goal of identifying important genes in eye development. Studying two patients from the Children's Hospital at Westmead, they aim to decipher precisely which genes are disrupted when a large fragment of a chromosome is relocated from one spot to another. Dr Renuka Rao joins us from the haematology research laboratory at St Vincent's Hospital, and Dr Samara Lewis from the Murdoch Children's Research Institute in Melbourne. Drs Rao and Lewis will be studying the role of genes in the development of the digestive system, such as the gut, liver and pancreas. Dr Rao said, "It is exciting to join such a reputable laboratory and to be studying a totally different area of research. I am really looking forward to it."



Samara Lewis at work in the Embryology laboratory

The CMRI also welcomes back Kylie Bower and Lyndal McLure to the Cancer Research Unit and Nicole Vlahovich, who returns to us after an impressive Honours year to begin her PhD in Muscle Development. Our animals will be in good hands with Joshua McMahon who joins the Bioservices team, and the Administration and Public Relations department is pleased to have Katrin Games, Community Relations Assistant and Erin Stalenberg, acting Scientific Education Coordinator also on board.

Making a Mark in Adelaide...

Gifted PhD student Mark Corbett was snapped up to work in Adelaide even before his thesis was complete. Mark's acclaimed work on the childhood muscle weakness disease, nemaline myopathy, which included developing a mouse model for the condition, has been duly recognised. Mark said, "The mouse model is actually a really good model for this disease because it replicates the human disease almost exactly. This makes it ideal to characterise the symptoms and trial therapies to improve muscle strength in people."

With his PhD thesis still warm from the printing press, Mark will begin work back in his home town of Adelaide at the Women's and Children's Hospital. He will be working on X-linked mental retardation. Mark explained, "There are a cluster of genes on the X chromosome which have been linked to mental retardation. My role will be to decipher the function of these genes, how they might interact and what symptoms they cause."

Mark's work on nemaline myopathy has been praised by his lab colleagues. Dr Edna Hardeman, Unit Head and Mark's PhD supervisor said, "Mark's work has contributed immensely to the success of our lab. He is a talented scientist and has landed a position that will allow him to apply the skills that he learned during his PhD to a new and very important area of research."



Mark Corbett, talented scientist in Jeans for Genes gear. CMRI wishes Mark the best of success in the future



Dr Patsie Polly with two of many students under her guidance, Anthony Corradin and Neha Kaushik, 2004 University summer vacation students

One of the reasons Dr Polly is moving on is the involvement she has had with students at CMRI. "I've been fortunate to work with many students and through this I discovered my talent and enthusiasm for teaching the emerging scientific generation." Dr Polly said the major challenges in her new role will be to juggle research with teaching responsibilities but that she is eagerly anticipating the student contact. "I get a buzz out of students learning and discovering new things, and I'm looking forward to injecting my vibrancy into the academic scene."

...while Sydney muscles up

We also farewell Senior Research Officer from the Muscle Development Unit, Dr Patsie Polly, who has begun a lectureship at the University of New South Wales School of Medical Sciences. Dr Polly will establish a research laboratory and coordinate third year science, teaching the molecular mechanisms of disease and musculoskeletal disease courses.

Dr Polly has expressed how valuable and enjoyable her time at CMRI has been, "I have had the privilege to work with many scientists from diverse backgrounds and have been able to expand my skills from using cells at the lab bench to real systems using mouse models." Dr Polly led the molecular investigations into the MusTRD protein and its role in muscle development and rehabilitation. Recent results from the lab suggest that this same muscle protein may also have a role in brain function.

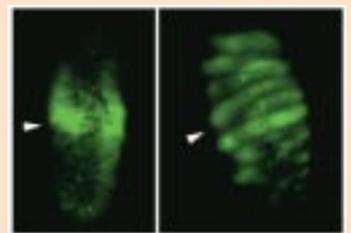
The Secrets of Specialised Cells

Visiting Japanese scientist Dr Satomi Tanaka and members of the Embryology Research Unit, have recently uncovered more of the mysteries of exactly how we develop. Dr Tanaka's research findings are soon to be published in the well respected embryology journal *Developmental Dynamics*.

In the early embryo, barely more than a tiny cluster of cells and only a few days old, cells start to become specialised. Different cells in the embryo will develop into different tissues - our limbs, our heart, digestive system and brain. The Embryology Unit at CMRI is involved in mapping the blueprint of this body plan. With a detailed map of development we can better understand abnormalities that occur when children are born with diseases like spina bifida, muscular dystrophy, deafness or even a hole in the heart.

Dr Tanaka, who holds a Japan Society for the Promotion of Science Fellowship, has detailed for the first time, a gene essential for the formation of sperm and egg cells in mice - the *Ifitm3* gene. "The sperm and egg cells are critically important, as these are the cells that pass on the genetic information to the next generation," says Dr Tanaka.

Dr Patrick Tam, Head of the Embryology Unit, explains "The knowledge we gain from this research is two-fold; we can identify both germ cells, the cells that become sperm and eggs and also non-germ cells, the other generic cells making up the rest of the body. By studying these generic cells we can go on to find the beginnings of specific tissue such as the liver and pancreas. This may have a significant impact on our understanding of conditions like haemophilia and diabetes."



Left: A six day old mouse embryo, intense green staining as indicated by the arrowheads, shows cells that will become the foetal sex organs. Right: The indicated cells move to the foetal testis



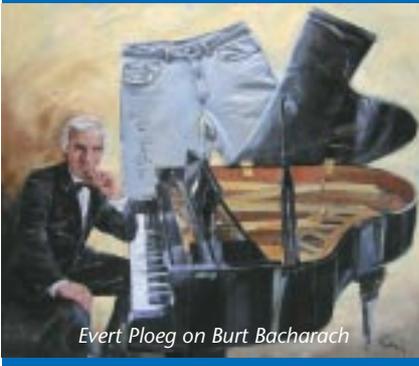
Ernie Gerzabek on Angry Anderson



Elizabeth Barden on Vanessa Amorosi



Robyn Caughlan on Shirley Bassey



Evert Ploeg on Burt Bacharach

Jeans for Genes[®] Day

Friday August 6

Official Retailers 2004

With the support of our official retailers last year, in-store badge sales went up by over 50% from the previous year. Jeans for Genes are very grateful for this wonderful support and commitment. We would also like to welcome our new retail outlets who have come on board. In total we now have 25 official retail outlets supporting us. They are: Just Jeans, Jeans West, Big W, Best and Less, Gloria Jeans, Myers (including the Megastores), Lowes, Harvey Norman, The Warehouse, Terry White Chemists, Toys R Us, HCF, BaySwiss, Sizzler, General Pants Co, Domayne, Levi's, The Pharmacy Guild of Australia, Franklins, Spendless Shoes, Rebel Sport, Rex Regional Express, Polo Ralph Lauren, Banjo's and Westpac.

New website launched April 2004

Check out the new Jeans for Genes website. It's cool, it's hot, it's just down right groovy! You'll find everything you need. With events, research information, merchandise and how to make your Jeans for Genes event a great success plus loads more. Go to www.jeans4genes.com.au

GET IN ON THE ACT.

There are so many ways to get in on the act this year. Check out our exciting events, trendy merchandise and all the awesome ways that you can be involved.

Teams for Genes

Get a group of six colleagues to Studio Evolution Fitness, in Balmain to combine your strengths and compete in the Teams for Genes Challenge. Gear up during your lunchtime, after work or whenever it suits you. Get fit and have fun at the same time! Entry forms available on the Jeans for Genes website www.jeans4genes.com.au or contact Maren Preston on (02) 9555 8722
Price - \$15 per person only (plus a free cap)
Win great prizes!

Jeans for Genes Art Auction

Join us for a dazzling night of dinner, entertainment and our Celebrity Jeans Auction on 22 July 2004. \$250 per person or bring friends for a \$3000 VIP corporate table. Last year's event sold out so get in early! Contact Kelly (02) 9687 2800

Bambini Cerrone

This year Nic Cerrone has kindly designed a beautiful "helix" baby bangle for Jeans for Genes Day. The designer pieces are in 9ct gold and each bangle is individually numbered. The cost of each divine piece is \$350 with \$100 from each bangle sold going to Jeans for Genes Day. There are only a limited number of these exclusive bangles so purchase or order yours early before they sell out.



Gorgeous Alpha Sylla wearing Bambini Cerrone.
(Photo courtesy Peter Brew Bevan)

Jamm for Genes Concerts

- State Theatre Sydney – Bands performing include Machine Gun Fellatio and The Polaroids.
Date - 6 August 2004
- The Espy – St Kilda Melbourne
Date – 5 August 2004
- The Normanby Hotel - Brisbane
Date - 1 July 2004

For other Jeans for Genes events and updates please go to www.jeans4genes.com.au or phone (02) 9687 2800 for further information.

Committee Jeans for Genes Events

Denim, Diamonds and Pearls Cocktail Party – Canberra Committee, National Portrait Gallery, Canberra, 29 July.
Contact Carolyn Forster 0418 284 788

Annual Jeans for Genes Denim Ball – Port Hacking Committee, Doltone House, Sylvania Waters, 6 August.
Contact Angela Williamson 02 9527 7655

Denim and Lace Ball – Griffith Committee, Yoogali Catholic Club, Griffith, 31 July. Contact Yvette Pasto 02 6968 1311

Jeans for Genes Trivia Night – Blacktown Committee, Auxiliary Club, Seven Hills, 6 August. Contact Liz McKenzie 0416 159 076

Jeans for Genes Race Day – Hills Committee, Rosehill Gardens, Rosehill, 28 August. Contact Patti Payne 0418 867 784

Jeans for Genes Harbour Cruise – Northern Beaches Committee, cruise on the M.V. John Cadman II for 3 hours around Sydney Harbour, 1 August. Contact Liz Willig 02 9971 0713 or Rowena Graham 02 9971 4198

PhD efforts pay off

PhD student George Craft has been awarded second prize and \$200 for his poster presentation at the annual Lorne Protein conference. The Lorne conferences are amongst the most important and widely attended conferences in Australia, attracting renowned scientists from all over the world. Poster presentations are an important aspect of research conferences as they give scientists the opportunity to display their work to colleagues and the broader scientific community.

The poster showcased George's work currently underway in the Cell Signalling Unit at the CMRI. An aspect of the Cell Signalling Unit's research is on the process of endocytosis, a crucial step for recycling the chemical messages that are responsible for brain communication. Messages are sent between cells by chemical neurotransmitters that are released from tiny packages called vesicles. After the neurotransmitter has been delivered, the vesicles are retrieved back into the cell to be recycled and refilled. This process is called endocytosis. George explains, "My research focuses specifically on the role of the protein amphiphysin, which assists the vesicle membrane to change shape and re-enter the cell."

Poster prizes are awarded when candidates display and communicate their research findings clearly, giving effective and insightful explanations. With over 150 posters on exhibition throughout the conference, George has done extremely well. Dr Phil Robinson, Head of the Cell Signalling Unit and George's PhD supervisor said, "It was great for George to win this prize for a lot of reasons. It reflects very well on his emerging profile in the scientific community, it shows that he can enthuse others with his work, his approaches and his ideas, and it also allows him to receive important feedback to confirm that his work is on the right track. So the award really is a fantastic boost for his career."



More room for more research; building extensions to the back of the CMRI

Extending ourselves

Extensions to the CMRI have been underway over the last six months. Despite a few delays, we aim to open the new sections of our building in late May 2004. The basic structural components are complete, with internal fit out, joinery and air-conditioning almost finished. The walkway, which links the CMRI with the Children's Hospital and Westmead Hospital, will be reinstalled in 15 months after completion of their new Clinical Sciences extension.

The new additions to our building will include extensions to our lunch room and library area, an extra meeting room, three additional tissue culture laboratories, another liquid nitrogen storage room, a new IT office and service facility and extra laboratory management offices. These facilities can only help our research grow and improve and are only possible from the support we receive from the public. Thank you for your dedication and hard work!

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

cardholder's name

cardholder's signature

expiry date

name

address

postcode

telephone

Please send me:

- More information about CMRI
- Christmas catalogue
- Information on my nearest fundraising committee
- An annual report
- Information on how to make a bequest
- Please update your records for my contact details

All donations are tax deductible



I would like to join the Automatic Credit Card Donor Program

Automatic Direct Debit Amount to be donated:

\$

Please complete the Credit Card Details at left.

Frequency: Monthly Quarterly Other

Commencement Date:

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 far left:

Mike Cox, Jane Roberts, Judge Ireland and wife Dusty, and Victoria Yeates at Mudgee's Autumn Feast;

Winners of the doll raffle Ashlee Thomas and her Mum Rachael, with Jessamy who now has her own room to sleep in at the Thomas house;

The hardworking Heritage Picket Fence committee from Windsor Rotary (L to R) Sid Kelly, Graham Galloway, Harry Grange and Richard Clark with Don Bradman's and Doug Walters signed pickets;

Runners-up Cameron Downing and Samantha Reid with winners Kate Hayward and Peter Fysh at the Vaucluse Committee Charity Tennis Day;

Mrs Jenny Burton explains the story behind an antique quilt during the highly successful Beecroft Committee luncheon.

Committee Power

Parramatta Committee

Congratulations to the Committee for their fantastic trivia night. The night was a big success with lucky dip raffle prizes, mystery wine purchases, auctions for designer jewellery, dinners, appliances and gorgeous fresh produce. Thanks to all who donated prizes for the night and well done to the Parramatta Committee for their best fundraising event yet!

Vaucluse Committee

The tennis day was a brilliant success. Congratulations to the winners Kate Hayward and Peter Fysh and to the committee for a wonderful day of sport, scrumptious food and beautiful views of the harbour.

Sydney Holden retailers

A big thank you to the Holden retailers of Sydney for their generous donation of \$20,000. Holden have been supporting CMRI for many years and we thank them for their brilliant efforts.

Mudgee Committee

The Mudgee Committee were delighted to see Professor Peter Rowe, Director of CMRI and wife Joanne and their 200 other guests who attended their Harvest Festival Dinner Dance. Scarecrows, grapevines, wine barrels and fabulous Mudgee produce decorated the Australian Rural Education Centre's pavilion for a wonderful Autumn Feast.

Charity Doll

Trip around the globe for CMRI charity doll Jessamy came to a happy end at the Australian Doll and Craft Show. Jessamy was raffled and won by the delighted 11-year old Ashlee Thomas. Thanks must go to Edith Rice, Jessamy's creator and Robyn Corbett for arranging Jessamy's world tour.

Windsor Rotary

The success of the Windsor Rotary Project continues. A splendid dinner held at the Sebel Resort, heralded the completion of the picket fence around the historic oval at Windsor. The picket signed by Don Bradman raised an amazing \$4250 on the evening. Fundraising for the CMRI and other charities continues with other events in the pipeline. Mr Doug Walters, patron of the project encourages everyone to continue their participation by making a \$50 donation in return for a miniature replica picket signed by a well known personality.



Dates for your Diary

Port Hacking Committee Golf Day

A Charity Golf Day will be held on 20 September. Be there for the 4 ball Ambrose; Shot Gun start for mixed foursomes at Cronulla Golf Club. Delicious snacks and dinner provided. Contact Elizabeth Henry 02 9544 1337

Strathfield Committee

Luncheon with guest speaker Dame Leonie Kramer, 7 June at Angelo's on the Bay, Cabarita Point. Contact Nita Trollope 0418 262 355

Thumbelina Committee Race Day

Celebrate the start of the city's Spring Race Carnival by saddling up for Rosehill Gardens inaugural Charity Race Day. A special race-goers package provides a delicious lunch and afternoon tea. Come along to make the Thumbelina Committee's 40th year their best yet. Rosehill Gardens, 23 October. Contact Ossie or Lesley Pitts 02 9417 1160

For more exciting Committee events see the Jeans for Genes page.

