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# All grown up and somewhere to go



Olympic medallist Michael Toon and cardiologist Dr Dorothy Radford

It's not often that an increase in patients with a particular condition is good news, but as Dr Dorothy Radford would tell us, the more the better when it comes to her speciality.

Improvements in surgery and medications over the past 60 years have seen a not-unwelcome growth in the numbers of adults with congenital heart disease. Treatment has improved so much that since 1940, the survival rate for diagnosed infants has increased from 20 per cent to 90 per cent. Congenital heart disease affects one per cent of babies and may mean anything from regular surgery to once a year check ups, but what it no longer means is high mortality. It also means that with the move of paediatric cardiology to the Mater, the Prince Charles Hospital has formalised its Adult Congenital Heart Unit, headed by Dr Radford. The unit officially has five staff: Dr Radford, Dr Chris Whyght, Dr Mugar Nicolae, nurse coordinator Theresa Malpas, and psychologist Jillie Kaisar. Social worker Connie Tunney supports the team which deals across the hospital and frequently consults with other specialist areas. Increased survival rates worldwide have resulted

in a growing interest in the field and more training available. As one of the Prince Charles's senior cardiologists, Dr Radford has followed many of the patients from their first admissions through successful treatment over the years to the development of the new unit. In some cases, she's even worked with two or three generations from the same family. The aim, Dr Radford says, is to help adults with congenital heart disease deal with the many problems life throws up while minimising the impact on their health. Theresa's role is primarily to coordinate check ups and appointments for the unit's thousands of patients in order to limit the amount of time people have to spend in the hospital so they can continue living their busy lives.

## Michael's story

Olympic medallist Michael Toon may never have survived, let alone achieved his sporting success,

without the treatment he received at The Prince Charles Hospital as a child. Born with congenital heart disease, Michael had open heart surgery when he was three and has had several pacemaker operations since.

Born in Brisbane, he moved to Canberra as a child but never had a congenital heart specialist there. He regularly flew back to Brisbane for expert treatment at The Prince Charles from cardiologist Dr Rupert Graff and surgeon Dr Mark O'Brien. Now as an adult, Michael is happy the Adult Congenital Heart Unit has been formalised.

"It means a lot to us, the patients, because previously we didn't feel like we had anywhere that catered to us," he said. "Having the unit there reinforces the idea that we're a separate patient group with our own set of needs and unique problems."

Growing up, Michael was determined to find a sport that suited him and discovered that rowing was something he not only enjoyed but was good at. As a cox, he helped the Australian Olympic team win bronze at Athens in 2004.

"Ironically, it opened up a lot more opportunities for me," Michael said. "It's something in my life I thought I'd never be able to do."

Already a qualified pharmacist, Michael is now a second year medical student at the University of Queensland, and training with the Queensland team for next year's national rowing championships.

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## Go for Golf!

Friday 14  
November 2008

What better way to spend a Friday than golfing for a good cause? The annual charity golf day is on Friday 14 November at the Virginia Golf Club. Thanks to our sponsors Virginia

Golf Club, Eagers, Roof Racks Galore, Perpetual, ROAM Consulting, Kedron-Wavell Services Club, Office National Strathpine, Bendigo Bank Community Banking Sector,

ArjoHuntleigh, JJ Agencies and Drummond Golf. Prizes, raffle and fun to be had. Entry is \$25 per person. Register yourself or your team by calling the club on 3267 6333.

## Rapid results from research to recipients



*Dr Johannes Reichert in the MERF surgical suite.*

To the lay person, a biomedical engineering lab sounds like somewhere a strawberry might be crossed with a goat. But to the staff at the new Medical Engineering Research Facility (MERF) at The Prince Charles Hospital, it's more about mechanics than manipulation.

Professor Mark Percy heads the facility, jointly owned by The Prince Charles Hospital and Queensland University of Technology. A Professor of Biomedical Engineering, Dr Percy and Chair of Orthopaedic Research Dr Ross Crawford oversee the range of research projects at the centre, which include the creation of a mechanical heart (the BIVACOR device), development of an effective ventilation system for premature babies, and new materials for joint replacements and repairs.

Patients will benefit from the partnership between the hospital and the university as the MERF will provide timely research solutions for problems encountered by doctors, as well as offering up to the minute skills training for medical staff.

The centre has labs dedicated for histology where bone and cartilage will be replicated to use in grafts, materials testing to testing to see how well prosthetics materials will stand up to being stood on, a preparation room, a general lab, a tools workshop for finetuning and customising

instruments and a lab currently set up for the neonatal ventilation project. The centre is also waiting for a grant to complete a micro CT room where very detailed images can be taken of bones and bone structure.

Downstairs, there's a surgical suite and an anatomical skills workshop. Much of the equipment in the facility has been donated, either decommissioned from hospitals, such as x-ray machines, or new from companies such as Medtronic and Stryker who provided high quality surgical lighting. All surgical tools used in the facility are new.

The centre can host up to 15 researchers in the labs at a time, with desk facilities for ten people working on MERF projects. In addition to the labs the MERF has a seminar room which can take a live feed from the operating theatre downstairs so students can watch procedures. There's a future plan to broadcast via satellite as new technology is tested to share local expertise with the international medical world.

## Valve makes surgery viable

Despite years of being told the way to a man's heart is through his stomach, a new surgical technique has proved it's actually through his groin.

Heart patients previously not eligible for open heart surgery may now be able to have a new valve inserted without a major operation. Using a new French device called CoreValve, doctors are able to correct aortic stenosis, the most common heart disease in the western world, affecting around four people in 1000.

Aortic stenosis is caused when the heart's main outflow valve thickens, preventing it from fully opening. This leads to reduced blood flow which in turn can cause a range of symptoms such as chest pain, breathlessness, blackouts and eventually heart failure.

The new device, about the size and shape of a champagne cork, is fed through a catheter in the groin and up into the heart. It uses a durable pig valve in a flexible wire cage which springs open and immediately starts working.

The disease can be genetic, age-related or a result of rheumatic fever. Patients with aortic stenosis are frequently readmitted to hospital and require ongoing treatment, but around 50 per cent are unable to undergo surgery to correct the problem. Untreated, the condition is fatal.

"Patients with a lot of other medical problems don't recover from open surgery or may take up to six months for recovery and physiotherapy," said Dr Darren Walters, Director of Cardiology at The Prince Charles Hospital. "With this procedure they don't have to go through all that, the trauma is minimal."

As the biggest cardio-thoracic service in the country, The Prince Charles Hospital was one of three sites around Australia chosen to test the CoreValve because of their expertise in the field.

The Prince Charles has already conducted six operations using the CoreValve and expects to perform 20 this financial year.



Cardiologists Dr Con Aroney and Dr Darren Walters with the CoreValve and recipient Jack Udderley (centre).

While the youngest patient has been 68, Dr Walters said this is not necessarily a treatment only for older patients.

"The technology is a big step forward. It's made things a lot simpler for patients and reduced the risks. It also puts less strain on the system. We don't have to put people in Intensive Care which saves thousands of dollars."

Dr Walters expects that as the technology improves more people will qualify for the surgery.

"It's a major advance. It's exciting for patients. Previously it was very frustrating for us because I'd balloon them open and see them

get better for a while and then degenerate," he said.

As Chair of the Clinical Trials Centre, Dr Walters oversees around 20 treatment trials, including several where Australia is leading international study. The Australian trial of the CoreValve procedure is the result of three year's work following around 1000 successful procedures in Europe. The technique is yet to be introduced in the United States.

"The technology is a massive step forward," Dr Walters said.

*Can you help?* If you are interested in helping the Foundation sell raffle tickets, assist with our mail outs or volunteer for an event, please contact us on 07 3139 4636 or [tpch-foundation@health.qld.gov.au](mailto:tpch-foundation@health.qld.gov.au)



## Garden of Life

In honour of donor families who thought of others, the Gift of Life Garden was opened at The Prince Charles Hospital on July 3rd by Health Minister Stephen Robertson, Health District Director Mary Montgomery and Foundation Chair John Hamilton.

A water feature outside The Breeze Café commemorating 10 years of lung transplants in Queensland was also opened, with thanks to the Queensland Lung Transplant Support Group Inc.

*Enjoy reading Vital Steps?* Pass it on to friends or family, or take it into the office, so that others can enjoy it too!

# Excellent Ekka



Thousands flocked to the Nestlé-Peters Strawberry Sundae stalls at the Ekka.

Throwing together an ice cream sundae may seem like a pretty easy task, but our dedicated Ekka volunteers were in for hard labour as they layered strawberries, vanilla ice cream and fresh cream into more than 160,000 cones.

Raising over \$50,000 for the Foundation's medical research grants, the four Nestlé-Peters Strawberry Sundae stalls were staffed by more than 1000 volunteers over the 10 day event. The tasks included chopping in excess of four tonnes of strawberries supplied by Queensland growers.

This huge effort would not be possible without the dedicated volunteers, individuals, community organisations, board members, hospital staff and corporate groups who gave up their time, and in some cases their holidays, to keep the stalls running in spite of the flu and the westerlies!

Money raised from the stalls will help the Foundation fund research such as current programs looking at treatments for heart disease and lung cancer, new vaccines, an artificial heart and joints, mental health and geriatric medicine.

- Thank you to everyone who helped out including:
- Charlie's Angels
  - Suncorp-Metway
  - Bendigo Bank
  - McInnes Wilson
  - Aspley Lions
  - Westpac Bank
  - ANZ Bank
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  - Albany Creek Venturer Scouts
  - Albany Creek Rovers
  - 16 Aviation Brigade
  - Bramble Bay Lions
  - Rotary Clubs of KippaRing
  - Lioness Club of Morayfield
  - Camp Hill-Carindale Lions Club Inc
  - Bunya Lions Club
  - Pine Rivers Lions Club.
- This year's Ekka was marked by the absence of regular stall supervisor Graham Judge who sadly passed away earlier this year.



## Response coupon

Research at The Prince Charles Hospital Foundation is important to me...

Name: Mr/Mrs/Miss/Ms/Dr \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Please accept my special gift of: \$ \_\_\_\_\_ (donations over \$2 are tax deductible)

I'd like to make a monthly donation of \$ \_\_\_\_\_ (eg \$10, \$20, \$50)

Please deduct my credit card monthly or contact me to arrange direct debit from my account.

Please find enclosed my cheque/money order payable to The Prince Charles Hospital Foundation  Please charge my:  Visacard/  Mastercard

Number: \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_ Expiry Date: \_\_\_\_/\_\_\_\_

Cardholder's name: \_\_\_\_\_

Cardholder's signature: \_\_\_\_\_

Please post your response to The Prince Charles Hospital Foundation  
Reply Paid 66753 CHERMSIDE QLD 4032

- Please send me more information about The Prince Charles Hospital Foundation
- Please contact me as I would like a representative of the Foundation to visit
- Please contact me regarding a tour of the facilities and research laboratories
- Please send me more information on how I can leave a gift in my will

Thank you for your continued support of the Foundation.