

## How can cycling prevent diabetes?



Photo © John Carleton

We are experiencing an epidemic of diabetes. When this condition occurs during pregnancy it is known as gestational diabetes. If poorly treated, gestational diabetes is a major cause of obesity and diabetes in the child, creating a vicious cycle affecting the health of future generations.

Our research aims to discover how to stop this cycle. And we know that interventions before birth are more likely to be successful than if applied later.

WIRF and The University of Western Australia have been awarded research grants from the Australian National Health and Medical Research Council and Channel 7 Telethon Trust to conduct a major study aiming to prevent gestational diabetes using exercise in women's homes.

Two hundred pregnant women who experienced gestational diabetes in a previous pregnancy will be invited to participate in a project called The Cycle Study. The women will be divided randomly into two groups. One group will participate in a program supervised by exercise physiologists using a stationary bike within their own home for 14 weeks and the other will be asked to continue with their normal level of activity.

The Cycle Study will compare the rates of gestational diabetes between the participating and control groups.

It is expected that The Cycle Study will provide vital information to help break the cycle of gestational diabetes and prevent obesity and diabetes in both the mother and child. If the exercise program is proven to break the cycle of gestational diabetes, it will have major benefits for future mothers, their children, and future generations.

For more information about The Cycle Study please visit us at [www.thecyclestudy.com.au](http://www.thecyclestudy.com.au).



## WHAT'S NEW AT WIRF

The Cycle Study	1
Our Welcome to You	2
Preterm Genome Study	2
WIRF at Telethon	3
Bibbulmun Trackers	3
Giving Time	3
Angel Breaths Update	4
Making a Difference	4

**Telethon supports  
WIRF research that  
will change  
our world**

We aim to discover why  
some babies are born  
preterm and how to  
prevent diabetes

# Preterm Genome Project



While most parents bring their newborn babies home within a day or two of birth, many premature little ones remain in hospital trying to survive.

Research and progress in health care have improved the outcomes for premature babies. However, we still don't know what triggers most cases of preterm birth. Recently, our research team has discovered that inherited genes may be a major cause. Transmitted from parents to child, genes hold the information to build our cells and dictate their functions. It is likely that a combination of genes or genes from both the mother and the baby play a role in prompting many cases of preterm delivery. In addition, genes behave differently according to environmental factors such as stress or infection.

The aim of the Preterm Genome Project (PGP), a large international collaborative research program, is to identify the genes that increase a mother's risks of giving birth prematurely.

The PGP will recruit 3000 women who gave birth prematurely at King Edward Memorial Hospital. A small amount of blood will be collected from the mother and from the baby's cord at birth. DNA will be extracted and compared to DNA from mothers who delivered full term.

The results are expected to provide exciting new information that will help us to understand better the causes of preterm birth. Understanding the causes is the best way for us to discover how this problem may be prevented.

If you would like any more information about the study please contact Associate Professor Craig Pennell or Dr Jennifer Henderson on 9340 1330.

## Stars Event and Rising Stars Symposium 2011

WIRF is proud to announce the Stars Event and Rising Stars Symposium on 28th and 29th September 2011. The Stars event will focus on gynaecological advances in prevention and cure and we are fortunate to have Professor Andreas Obenmair as our Visiting Professor plus our local experts Professors Yee Leung and Ian Hammond. The Rising Stars Symposium will feature WA's top emerging medical researchers in Women's and Infants Health' and reveals their latest discoveries in short, sharp research reviews. For more details please visit [www.wirf.com.au/events](http://www.wirf.com.au/events).

## Welcome to the First Issue of WIRF News!



This is the first of a regular series of newsletters aiming to provide you with the latest information on research studies and events at Western Australia's only community based organisation dedicated to research and education in reproduction and women's health.

In each issue we plan to outline some of our research programs and directions to where you may find further information. You will also find helpful information on health matters in this field and news of educational events that we hold. Up-to-date information can always be accessed at our website – [www.wirf.com.au](http://www.wirf.com.au).

Finally you will find information about our volunteers and suggestions on how you can participate to improve research and care in this most important field of health care.

I sincerely hope that you find reading WIRF News beneficial and enjoyable.

Professor John Newnham  
Executive Director

# WIRF at Telethon

WIRF is delighted to be a beneficiary of the Channel 7 Telethon Trust and, as such, we exhibit at the Perth Convention Centre during the Telethon Weekend.

This weekend provides an opportunity for charities that have received Telethon support to show donors how their money is used. Each year WIRF showcases some of the work it does, as well as providing an activity that is fun for the kids.

This year we were fortunate to receive a Telethon grant for preterm birth research, so the theme for our display was prematurity.

The kids activity was designed to demonstrate some of the problems that may happen to various parts of the body when a baby is born too early. Thanks to Kaboom Toons for their fantastic cartoon illustration.

For more information on our research studies supported by Telethon please visit [www.wirf.com.au](http://www.wirf.com.au).



Top: Cherry and the Crisp family.  
Left: Fernandez family.

# Bibbulumun Trackers

Last September Sharon and a group of friends and family set off along the Bibbulumun Track to raise money for the Women and Infants Research Foundation. This wasn't any ordinary stroll in the park but a challenging two day hike with an overnighter in the bush.



Thankfully the 14-strong team (consisting of Justyn, Sharon, Christine, Craig, Carly, Troy, Latif, Darren, Jes, Ellie, Su-fen, Matt, Eleanor and Kathryn) were supported by Mel and Greg who provided food and drinks at two access points along the track.

WIRF is a particularly important charity for Justyn and Sharon who lost their little girl, Chloe born prematurely at 25 weeks' gestation. The King Edward Memorial Hospital (KEMH) Neonatal Unit provided vital care for Chloe throughout her 6 days of life. Sharon, Justyn and their team raised an amazing \$8375 through the support of friends, family, work colleagues and employers. This significant donation will be used to support research into premature birth and to purchase essential life saving equipment for the KEMH Neonatal Unit.

# Giving Time

WIRF is fortunate to have 70 dedicated volunteers who help out in the cafe/gift shop and in our offices at King Edward Memorial Hospital. Our oldest volunteer is Win Froude who is 92 years of age. For the past 11 years, Win has driven from Myaree to the hospital twice a week to help out in the cafe.

We are also very fortunate to have many volunteers who knit and sew beautiful baby clothes and blankets.

Earlier this year our Patron, Mrs Julie Michael and her knitting group, delivered a basket of beautifully made items for the WIRF Shop (pictured right).

Giving time is such a precious gift and we can't thank our volunteers enough for their dedication and their amazing work.



More stories about of our volunteers are available on our website at [www.wirf.com.au](http://www.wirf.com.au).

Photo - Patron, Mrs Michael and knitting group

# Angel Breaths Update



## What is the Angel Breaths Campaign?

The 'Angel Breaths' Campaign, launched in July 2009, aims to raise money to purchase equipment for the intensive care baby unit at King Edward Memorial Hospital and to support WIRF's vital research into premature birth.

## Who benefits?

Every dollar you donate to the Angel Breaths Campaign is directed to research and equipment to help premature babies with breathing problems. In Australia, 8% of babies are born prematurely and this complication of pregnancy poses many dangers, particularly lung damage through under-developed lungs. For the smallest and very premature babies the risks are even greater. With your help we can buy the very best equipment to treat their fragile lungs and through research we can make advances in healthcare to give premie babies a greater chance of survival.

## Why do we need more ventilators for premature babies?

Successful treatment of our smallest and sickest babies requires special ventilators that are able to deliver very gentle breaths to the lungs so that the lungs are not damaged. We are fortunate at King Edward Memorial Hospital to have Professor Jane Pillow as one of our clinicians. Jane is recognised internationally for her expertise in mechanical ventilation of the newborn infant. Professor Pillow's research focuses on how we can best use modern ventilators to help babies to breathe whilst minimising associated lung injury. Although we have a few ventilators that can deliver gentle ventilation, our unit expanded in May 2011, increasing our ventilation capacity up to 30 babies (making a total of 100 nursery beds). To support this expansion we need additional state-of-the-art ventilators that deliver very small breaths, ensuring that we can continue to provide the very best care to the babies in our nursery. We urgently need your help to buy more ventilators for treatment and research.



*With your help we can send more babies home to their families.*

Please help us reach our \$500K target and give our tiny babies the best possible start in life by donating to the Angel Breaths Campaign at King Edward Memorial Hospital.

## What your help has achieved so far

We are most thankful for the generous donations from our supporters, staff, volunteers, patients and various organisations. With your help we were able to purchase two jet ventilators in 2009/10, but we can't stop there. We need more help to buy vital life-saving equipment and fund research into premature birth.

Please donate using the slip below or give your gift online at [www.wirf.com.au](http://www.wirf.com.au).



**Yes! I would like to make a donation to:**  General Donation  Angel Breaths

Full Name .....

Address .....

Suburb ..... Postcode .....

Email .....

Telephone .....

- I would like more information on leaving a bequest to WIRF
- I would like to make a regular donation through direct debit (please contact me)
- Please remove me from your mailing list

I would like to donate \$

Mastercard  Visa Other .....

Card Number

/     /

Cardholder's Name

Expiry Date   /

Signature .....

All donations over \$2 are tax deductible

Please return the completed donation slip to WIRF, Carson House, King Edward Memorial Hospital, 374 Bagot Road, Subiaco, 6008  
Tel: 08 9340 1437 Fax: 08 9340 1642 Email: [wirf@wirf.com.au](mailto:wirf@wirf.com.au) Web: [www.wirf.com.au](http://www.wirf.com.au) ABN: 94 418 431 354