

Under the microscope



NEWS FROM INSIDE THE INSTITUTE FOR OUR SUPPORTERS

WINTER EDITION 2017

It's all systems go for ProCan®

Thank you to our wonderful supporters who have helped us raise over \$170,000 in our recent appeal towards *ProCan*, our world-leading cancer research project.

Over 1,200 samples have been analysed so far, including 32 different head and neck cancers. This has not only validated our methodology, but also produced more proteomic data than has ever existed for some cancer types.

We are confident that we are now on track to develop a new cancer test that will diagnose the precise type of cancer within 36 hours. Thank you for your continued support in making this goal possible.





From the Director

Welcome to the Winter 2017 edition of Under the Microscope.

I'm pleased to introduce to you two world-leading researchers joining the *ProCan* team at CMRI: Dr Brett Tully and Clinical Associate Professor Rosemary Balleine. Dr Tully was recruited from Oxford, U.K. and is a leading software engineer who will develop the complex software needed for *ProCan*. Dr Balleine, whose pathology expertise is vital to the project, is profiled in more detail later in this issue of Under the Microscope.

Our annual Research Excellence Awards were held on 24th May. The winners for Outstanding Research Achievement were Professors Ian Alexander and Robyn Jamieson. For Outstanding Research Idea, the winners were Assoc. Professor Hilda Pickett and, once again, Professor Robyn Jamieson. Each of these researchers is making significant advances in treatment or diagnosis of genetic diseases.

I will end by remembering former CMRI Director, Professor Peter Rowe, who passed away in March this year. Known for his unwavering support of biomedical research, he was responsible for creating a culture of high-quality fundamental science at CMRI, and for building up the areas of research in which CMRI now excels. Director of CMRI for 27 years, Prof. Rowe was a formidable force who has left a truly remarkable legacy. He will be greatly missed and never forgotten.

Roger Reddel
Lorimer Dods Professor
and Director



Congratulations to the 1st prize winner Xiaochen Fan & 2nd prize winner Pragathi Masamsetti. They are our 2017 winners of the Star Alliance Travel Scholarship which provides for a PhD student to attend a conference overseas.



This October, set your own goal and ride to fight kids' cancer in the Great Cycle Challenge.

— Visit greatcyclechallenge.com.au



Research Update

Through the new Centre for Applied and Translational Genomics (CATG) we will combine our expertise with that of clinicians in Sydney's leading hospitals to methodically investigate rare genetic diseases and bring treatments to children sooner.

We care about rare



1 in 20 children are born with a birth defect or genetic disease. Many families touched by genetic disease have no definitive diagnosis, and often no treatment exists for their child's condition. They need answers.

CMRI is teaming up with the Sydney Children's Hospital Network to help children suffering from rare genetic diseases. We're in the process of establishing the Centre for Applied and Translational Genomics, partnering clinicians with researchers who, together, can provide a diagnosis, understand the disease, and develop improved treatment options as rapidly as possible.

Some of the research expertise CMRI offers includes:

- **Translational Vectorology Group** – researching improved methods for gene therapy, which corrects genetic diseases at the source, by providing a healthy copy of a gene to affected cells or correcting the DNA within cells;
- **Gene Therapy Research Unit** – established over 20 years ago, this unit works closely with the Children's Hospital at Westmead and conducted Australia's first ever gene therapy clinical trial for a genetic disease. A key focus is developing a trial to test their cure for inherited urea cycle defects that cause serious liver disease;
- **Cell Biology Unit** – contributes to 'functional genomics' or the understanding of how certain genetic defects cause disease and thus how they can be treated. Their focus is on telomere diseases, which can cause bone marrow failure and other serious issues in children;
- **Embryology Research Unit** – provides world-recognised expertise in embryo development, cell programming, and how genetic changes affect cellular functions and cause disease;
- **Eye Genetics Unit** – works to understand causes of genetic eye diseases and discover new clinical treatments for them.

Through your continued support, we are bringing our vision to life, developing new treatments sooner for children with genetic diseases.

— Explore more online: <http://www.cmri.org.au/Research/Research-Units/Embryology>



CMRI was saddened by the passing of Professor Peter Rowe at the age of 80. Prof Rowe served as Director of CMRI for 27 years until his retirement in 2006.

— Read more <http://www.cmri.org.au/Prof-Rowe>



Want to see CMRI's scientific research first hand?

Come and join us on our Discovery Day events which are next on 15th August & 19th September. Please contact us on info@cmri.org.au and let us know the date you'd like to attend.



Rosemary Balleine is Head of ProCan Cancer Pathology. Her background is in breast cancer research and clinical, anatomic pathology. She joined CMRI in late 2016.



Q & A

With – Clinical Associate Professor Rosemary Balleine

Q: Why join CMRI?

A: The ProCan project has ambition. It will go beyond discovery research and be applied to patients. My role is to help move it from bench to bedside. I'm dealing with brilliant, creative scientists who have great ideas.

Q: How does this differ from your hospital work?

A: In hospital, the day to day questions were 'What is the cancer?', 'How bad is it?', 'What to do?'. Here, I'm drawing various

research threads together so we can answer those questions for clinicians. My new questions are 'more'. 'How do we make cancer diagnosis and treatment more thorough, more reliable, more informed?'

Q: What are the challenges?

A: Most research groups work on one type of cancer, not all cancer types like us. The scope is huge. I ensure we're answering clinical questions and delivering on the promise of a new cancer diagnostic method which will enable clinicians to diagnose the precise type of cancer in 36 hours.

— Read more at www.cmri.org.au/ProCan



Jump for Jeans

Jump for Genes is a fundraising initiative designed for the adrenaline junkie. This year the amazing team at Stanford Brown have raised over \$30,000 for Children's Medical Research Institute. Several members of the team were brave enough to skydive 14,000 feet in Wollongong to show their determination to help beat childhood disease. Go team!

Stanford Brown has committed to raising an incredible \$90,000 over three years, as part of their effort to support a PhD student. We can't thank them enough for their ongoing support and generosity.



Upcoming Events

Judith Hyam Christmas in July – Gledswood Homestead Camden, Friday 28th July.

Mudgee Committee Christmas in July – AREC, Saturday 29th July.

Northern Beaches Committee Jeans for Genes games day – Friday 4th August.

Gerringong Committee Trivia Night – Fishermen's Club Gerroa, Friday 4th August.

Strathfield Committee Gala Dinner – Mediterranean House Five Dock, Saturday 24th August.

Judith Hyam Riverboat Postman Cruise – Friday 8th September.

Beecroft Committee North Rocks Charity Golf day – Muirfield Golf Club, Tuesday 12th September.



Spotlight on our partner: JEANSWEST



Jeanswest has been a loyal supporter of the Jeans for Genes® campaign for more than a decade.

“For us, the partnership just makes sense. Denim is what we’re known for, so when we discovered a charity who promotes wearing your favourite denim to raise money for children’s medical research, there were no questions about whether we wanted to be a partner or not,” PR and Retail Marketing Coordinator, Natalie Sartori, said.

Jeanswest stores span Australia and New Zealand, and have been dressing customers in denim for the past 45 years. Its fundraising efforts have involved outfitting ambassadors, selling campaign merchandise, and holding fun, celebrity-designed jean auctions.

“We challenged local celebrities to decorate and design a pair of Jeanswest jeans, which we then auctioned off,” Natalie said. “We’re thrilled that we’ve found the perfect

charity to align ourselves with, and who fits best with our brand.”

The charitable partnership between Jeans for Genes Day and Jeanswest plays an integral role in the campaign growing each year.

“We absolutely love the work Jeans for Genes and Children’s Medical Research Institute (CMRI) conduct and for us to be able to contribute to raising awareness and funds is a focus across the business.”

CMRI relies on that funding and awareness to achieve its goal to end childhood disease.

Jeans for Genes is on 4th August. There are many ways to celebrate Jeans for Genes day at your workplace, community, school and home. And, its not too late to donate at www.jeansforgenes.org.au.

Together we can create a healthier future for every child, for generations to come.



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www.cmri.org.au/donate



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