



## PhD Scholarships in Basic Medical Research

(PV 07/11)

Have you considered undertaking a PhD with some of the best scientists in the world? Why not take control of your own future and be proactive in the choice of research area that excites you. If you're an outstanding and enthusiastic graduate committed to a career in research then apply now for a PhD position at CMRI.

The Children's Medical Research Institute (CMRI) is an award-winning state-of-the-art medical research facility, with over 100 full-time scientists dedicated to researching the genes and proteins important for health and human development. The CMRI is supported in part by its key fundraiser Jeans for Genes<sup>®</sup>. Our scientists are internationally recognised research leaders and foster excellence in postgraduate training. CMRI graduates are highly sought after nationally and internationally.

The CMRI is located at Westmead, a major hub for research and medicine in NSW, and is affiliated with the University of Sydney. We are easy to access by public transport.

Projects are multi-disciplinary with training in molecular and cellular biology techniques, with some involving mass spectrometry, proteomics, protein-protein interactions, transgenic animals or live cell imaging. More information can be found on our website [www.cmri.com.au](http://www.cmri.com.au)

Current project areas include:

- [Embryology](#) ([Patrick Tam](#)). The mechanisms by which cells in embryos determine the body plan and how faults occur during abnormal development is being explored by analyzing the development of transgenic and mutant mice using molecular and cell biological approaches.
- [Cell Biology](#) ([Tracy Bryan](#)). Telomerase is the enzyme responsible for allowing most cancer cells to divide indefinitely. How this happens is being probed by chemical, protein and molecular approaches.
- [Cell Transformation](#) ([Antony Braithwaite](#)). Most cancers include defects in the tumour suppressor gene p53, which normally protects us from getting cancer. We are using molecular and cell biology approaches to understand how p53 interacts with the environment.
- [Cancer Research](#) ([Roger Reddel](#)). Cancers that do not use telomerase use ALT to immortalise. Our team discovered this alternate mechanism of cancer progression and is analysing the mechanisms underlying its function in order to develop new treatments for cancer.
- [Muscle Development](#) ([Edna Hardeman](#)). The genes and molecular mechanisms involved in skeletal muscle diseases such as muscular dystrophy and nemaline myopathy are being deciphered using transgenic animal models, behavioural studies and electron microscopy.

- [Gene Therapy](#) ([Ian Alexander](#)). We are working on developing new therapies for the treatment of genetic and acquired diseases of the haematopoietic system and the liver.
- [Eye Genetics](#) (Robyn Jamieson) is studying patient and family groups and using animal models to identify the function of the genes involved in eye disorders, such as glaucoma, cataracts and retinal defects.
- [Cell Signalling](#) ([Phil Robinson](#)). The molecular mechanisms of nerve communication at the synapse is being determined by proteomics, protein chemistry, molecular biology and cell biology approaches.

Applications are evaluated in a highly competitive process involving selection and interview by a Scholarship Committee. Successful applicants will be awarded a CMRI scholarship, which has a value greater than that of the Australian Postgraduate Award or NHMRC Postgraduate scholarships. Successful applicants will also be expected to apply for external scholarships with support from research unit leaders at the CMRI (applications close 31 Oct at The University of Sydney).

We are also offering a number of opportunities for undergraduate students seeking to enrol in Honours programs, with approval from their current University department for affiliation to CMRI.

Applications close **Friday 28 September** and should be sent (email preferred) to:  
The Human Resources Manager  
Children's Medical Research Institute  
Locked Bag 23  
Wentworthville 2145 NSW  
Email: [recruitment@cmri.com.au](mailto:recruitment@cmri.com.au)

To apply, send a covering letter (quoting PV07/11) that states why you want a career in research, your research area of interest and your career goals. Attach a detailed CV (including current subjects and the abstract of any Honours or Masters thesis) and details of experience (particularly any laboratory experience), including the names, phone and email contacts of two referees.