



PhD Scholarships in Basic Medical Research

PV11/11

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 scholarship 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®. 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.org.au.

Current project areas include:

- **Eye Genetics (Robyn Jamieson).** We are using high-resolution genomics in patients, and animal and cell-based models to characterise novel genes and new treatment strategies in blinding eye disease.
- **Embryology (Patrick Tam).** The cellular and molecular mechanisms by which cells in embryos determine the body plan and how faults occur during abnormal development is being explored by investigating the differentiation of embryo-derived stem cells and analyzing genetic models of birth defects.
- **Phospho/glycoproteomics (Mark Graham).** A novel cell signalling molecule has been discovered on a key brain protein. The regulation of events at the synapse by this molecule are being studied.
- **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.

- **Cancer Research (Roger Reddel).** Cancers that do not use telomerase use ALT to become immortalised. Our team discovered this alternative mechanism of cancer progression and is analysing the mechanisms underlying its function in order to develop new treatments for cancer.
- **Cell Signalling (Phil Robinson).** The molecular mechanisms of nerve communication at the synapse are being determined by proteomics, protein chemistry, molecular biology and cell biology approaches.
- **Cell division (Megan Chircop).** Unregulated cell divisions can contribute to the initiation/progression of cancer. Our group focuses on understanding the molecular mechanisms driving the progression through the cell cycle with particular emphasis on the centrosomes and mitosis. Several proteins that function during the cell cycle are being targeted for the development of new chemotherapeutic cancer drugs.

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.

Your application (quoting **PV11/11**) should include:

- A completed application form, available from <http://www.cmri.org.au/GRADUATE-OPPORTUNITIES/default.aspx>;
- A copy of academic transcripts showing subjects and grades. Applications **will not be considered** in the absence of academic transcripts;
- Evidence of Australian or New Zealand citizenship, or Australian permanent residency.

Please convert all documents to Adobe PDF and email **as a single PDF file** to recruitment@cmri.com.au, with **PV11/11** in the subject line of the email.

Applications close **Friday 19 August 2011**.