



AUSTRALIAN LIONS CHILDHOOD CANCER RESEARCH FOUNDATION SCHOLARSHIP

Summary

The Children's Cancer Research Unit (CCRU) was founded in 1997 as the research-dedicated arm of the clinical Oncology Department at The Children's Hospital at Westmead, and undertakes clinical and translational cancer research with over 30 research and support staff. The team carries out research into a number of cancer types, with a focus on the solid tumours in children and adolescents that have a poor patient prognosis, such as neuroblastoma, brain tumours and sarcomas.

The research programmes aim to achieve the following:

- Increase understanding of the molecular and cellular basis of childhood and other cancers
- Develop new cancer treatments using gene therapy and molecularly targeted approaches
- Facilitate and promote research into childhood cancer through the provision of high quality clinical specimens, laboratory research platforms, and research expertise

Research at the Hospital is supported by both peer-reviewed grant funding, and donated funds from the community. Both sources of income are indispensable for different reasons. Peer-reviewed funding provides researchers with credibility, as this demonstrates that their ideas and achievements have been recognised as being of the highest quality. However, the amount of peer-reviewed funds available is small, compared to the number of researchers that apply for this. Because of this, donated funds are an invaluable way of "filling the gaps" that result from inadequate government support for research in Australia.

The training process for researchers in Australia involves an undergraduate degree (typically in science), followed by postgraduate study in a research environment. Researchers aspiring towards future independence undertake a PhD degree, or doctor of philosophy. The PhD degree in Australia involves 3-4 years of full-time research, and the completion of a written thesis describing the results of this research. PhD training is intensive, and is designed to equip students with the capacity to think independently, and to undertake research in an independent fashion. The process of undertaking a project for 3-4 years also generates a large body of results on a particular topic. Because of their dedication and focus, PhD students are critically important for the overall research enterprise

This is particularly true in the face of falling National Health and Medical Research Council (NHMRC) grant success rates, which have dropped from historical levels of 21-23 to around 15. Researcher leaders are therefore increasingly reliant upon postgraduate students to generate research results as preliminary data for grant applications. In a number of cases, entire projects may be completed by PhD students during their candidature.

Most PhD students undertake their studies full-time, and are supported by PhD scholarships during this process. Like all funding opportunities, PhD scholarships are becoming more competitive, and more difficult to obtain. For example, the Australian Postgraduate Awards (which fund most PhD students in Australia) now focus on graduates from the past 5 years, whereas all graduates were previously encouraged to apply to this scheme. Surprisingly, there is no PhD student scheme in Australia that is dedicated to childhood cancer research. Australian Rotary Health Foundation

has previously funded some PhD scholarships in this area, but the majority of these scholarships fund adult cancer research, or other diseases.

A lack of PhD scholarship funding means that promising young researchers may fail to enrol in higher research training and/or will choose careers other than research. In addition, there is currently no incentive for prospective students to choose to study childhood cancer. As senior researchers increasingly rely upon students to conduct research projects, important initiatives may also have to be deferred or suspended. This will also reduce the opportunities to apply for other external grants in the future. While cancer patients will continue to receive the best care in the hospital system, possible cures and treatments will not progress to their full potential.

Objectives

The CCRU aims to perform the best possible research relevant to the causes and treatment of childhood cancer. Performing the best research requires the best people, and continually recruiting and retaining high quality team members. Postgraduate students represent a very important component of the research workforce. As they are paid a stipend instead of a full salary, postgraduate research students are a cost-effective means of generating preliminary results for research funding applications, and therefore research students can lead to increased external funding over time. In return for generating research results, the student receives essential training in how to plan and conduct research projects, and how to communicate their results. By supervising PhD students to completion, senior scientists train the next generation of cancer researchers, and continue to revitalise the cancer research workforce with new people and new ideas.

Expected Outcomes

We expect that by supporting a PhD student over 3.0-3.5 years, the student will have achieved one or more of the following outcomes:

- Obtained a PhD degree through research
- Published one or more research manuscripts
- Produced preliminary data for one or more external funding applications

Eligibility Criteria

- In order to be eligible for the ALCCRF scholarship, students would need to:
 - Be eligible to enrol in a higher degree at the University of Sydney or similar NSW -based University
 - Be accepted as a suitable higher degree candidate by a CCRU postgraduate supervisor
 - Undertake their research project within the CCRU
 - Not concurrently receive any other PhD scholarship that includes a student stipend amount
 - Continue to apply for any externally funded PhD scholarship(s) for which they are eligible
- In the event that the student successfully obtains an externally funded scholarship, the student would be responsible for informing the ALCCRF Board of their success in writing, within 30 days of accepting the external scholarship. Under these circumstances, we would request that the student no longer receives the stipend component of the ALCCRF scholarship, but continues to receive the supporting costs.
- If for any reason the student discontinues their studies, or their re-enrolment was not supported or other cancelled by their University, all ALCCRF support to that student would be terminated.

Selection process

If more than one student fulfils the criteria of the ALCCRF scholarship, the Head of the CCRU, in conjunction with the Head of the Oncology Department, will be responsible for deciding which student should be awarded the ALCCRF scholarship, based upon their past research experience and productivity, and supporting referee reports.

Timeline

Whereas most students previously enrolled for PhD studies in October and then commenced their studies by March in the following year, students are now being encouraged to enrol across the calendar year. Nonetheless, many students continue to follow the previous arrangements of enrolling in October/ November, and commencing their studies in March. Annual progress reviews are typically conducted in October each year. PhD students are typically enrolled on a full-time basis for at least 3 years, prior to submitting their PhD thesis for examination. Many students require a 6 month extension to this 3 year period, and most external PhD scholarships provide an additional 6 months of funding during this period. We propose that the ALCCRF scholarship be awarded for 3 years, and that this also allow for an additional 6 months of support, in the event that the enrolling University grants a 6-month extension to the student's candidature. Any such extension would only be awarded on one occasion to any individual student. Otherwise, all support from the ALCCRF scholarship will cease upon PhD thesis submission.

Key Personnel

Each research project will be supervised by a postgraduate supervisor, who in turn reports to the Head of the CCRU. Students will be required to present their results to the CCRU and relevant members of the Oncology Department through the CCRU seminar series, and to participate in the CCRU Journal Club, on at least a yearly basis. Students must also fulfil all other requirements stipulated by their enrolling University. For example, within the University of Sydney Discipline of Paediatrics and Child health, all postgraduate research students are required to present their most recent results at an annual postgraduate student conference, and to attend a series of postgraduate student education seminars. Students must also successfully complete a one-year period of probation, and be approved for re-enrolment through their University's annual progress review scheme, or equivalent. Student research projects may also be monitored through Human and/or Animal Research Ethics Committees, and/or Institutional Biosafety Committees, as appropriate

Reporting Mechanisms

At the end of each funded calendar year, students will provide a copy of their annual progress review, as conducted by their enrolling University, to the ALCCRF Trustees. This report summarises the results obtained in the past year, and lists any conferences attended, research presentations made, and progress in publishing results. This report also states whether or not the student has made the required progress for degree re-enrolment.

At the end of their candidature, the student will supply a final report to the ALCCRF Trustees summarising their overall research findings, and how these were communicated or presented through research publications, and/or conference presentations. The student will also confirm the date on which their degree was conferred by their University.

Recognition of the Australian Lions Childhood Cancer Research Foundation

Australian Lions Childhood Cancer Research Foundation will have the naming rights of this PhD scholarship initiative.

The funded student will present and talk about their scholarship and research at one of the Australian Lions Childhood Cancer Research Foundation meetings

A presentation morning tea and tour for the Australian Lions Childhood Cancer Research Foundation will be held at The Children's Hospital at Westmead, in recognition of the partnership with The Children's Cancer Research Unit

The Australian Lions Childhood Cancer Research Foundation will receive invitations to attend The Children's Hospital at Westmead donor recognition events and acknowledgment by The Children's Hospital at Westmead as supporter milestones are reached

Inclusion in The Children's Hospital at Westmead Annual Report donor listing section

Use of The Children's Hospital at Westmead Proudly Supporting logo on the Australian Lions Childhood Cancer Research Foundation website and in publications

Support will be acknowledged in all publications and media releases describing the funded student and their research, and in their submitted thesis.

