PhD Scholarships within the ARC Centre of Excellence for Advanced Molecular Imaging

Exciting opportunities exist for two PhD candidates to characterize the molecular basis of protein import into the mitochondrion using cryogenic electron microscopy (cryo-EM). Mitochondrial biogenesis requires ~1000 gene products encoded by the nuclear DNA to be imported into the lumen. All proteins that are imported across the outer mitochondrial membrane enter through the Translocase on the Outer Mitochondrial membrane (TOM). The candidates will analyze the structure and dynamics of native conformations of the TOM nanomachine using cryo-EM. Images will be acquired at the newly established Clive & Vera Ramaciotti Centre for Structural Cryo-EM, housing the world-class FEI Titan KRIOS instrument. The two student projects will provide training in membrane protein production and characterization, protein structure determination using cryo-EM and single-particle analysis, in addition to a plethora of other biophysical characterization techniques. Specific project areas will be identified to suit the skills and ambitions of the successful candidates.

Availability
This scholarship is offered on an ongoing basis to 2 people. Open for applications from September 1, 2015 until December 31, 2016.

Payment Information
The value of this scholarship is AUD 25,000 (per annum). This award is to be used for living expenses. The scholarship is paid fortnightly during the 3-year-period.

Essential Criteria
An H1 Honours degree, or Masters by Research Degree, or Masters by Coursework degree with a minor thesis. The degree should be in a relevant discipline, such as: Chemistry, Physics, Biochemistry, Genetics, Molecular Biology, Microbiology or Computer Science. The student nominated for this scholarship must:

✓ have completed a four-year undergraduate or equivalent, with an H1 assessment;
✓ be eligible for full-time enrolment in a PhD—a CV should be submitted with the applicant’s candidature yo enable assessment;
✓ be an Australian or New Zealand citizen or Australian permanent resident;
✓ not have previously enrolled in an equivalent degree.

For enquiries and further information, please contact: A/Prof. Hans Elmlund: hans.elmlund@monash.edu, or Prof. Trevor Lithgow: trevor.lithgow@monash.edu. Submit your application containing a short outline of your research interests, your CV transcript of academic results and the contact details of two referees to:

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