

## Optymise Orygen PhD scholarship in Neuroimaging in Mood Disorders

Centre for Youth Mental Health, University of Melbourne  
Orygen, the National Centre of Excellence in Youth Mental Health

### The project

A full-time postgraduate scholarship is available for a suitably qualified candidate to undertake research into neurobiological mechanisms underlying youth depression at Orygen, the National Centre of Excellence in Youth Mental Health. The successful applicant will be required to enrol in a full-time PhD with the Centre for Youth Mental Health, Faculty of Medicine, Dentistry & Health Sciences, University of Melbourne. Please refer to <http://mdhs-study.unimelb.edu.au/degrees/doctor-of-philosophy/entry-requirements#entry-requirements> for further information on the entry requirements to a UoM research higher degree. This PhD project is supported by the NHMRC Centre of Research Excellence in Optimising Early Interventions for Young People with Emerging Mood Disorders (Optymise); <http://www.optymise.org.au>. Research will be conducted at Orygen under the supervision of Dr. Lianne Schmaal and Dr. Chris Davey.

The overall aims of the PhD project are to establish the neurobiological correlates underlying variation in disease profile and disease course of mood disorders in young people and to identify which (imaging) markers distinguish between or cluster across current disease classifications. The PhD student will work with large-scale datasets from the ENIGMA Major Depressive Disorder (MDD) consortium (<http://enigma.ini.usc.edu/ongoing/enigma-mdd-working-group/>) and local datasets acquired at the Optymise collaborating institutes (Orygen, Brain and Mind Centre). The PhD student will support ongoing ENIGMA MDD work and will apply advanced computational and statistical methods, including the application of supervised and unsupervised machine learning techniques to the ENIGMA MDD datasets and datasets acquired at the Optymise collaborating institutes. The PhD student will write scientific papers on the above topics, and incorporate the research into a PhD thesis.

### Eligibility

We are looking for a highly motivated and enthusiastic student with a strong interest in psychopathology who has the following background and experience:

- Completed tertiary studies that are at least equivalent to a 4-year honours degree at an Australian university with a minimum result of first class honours in the field of psychology, computer science, (medical) informatics or technology, biomedical engineering, or related discipline;
- Some experience with neuroimage analysis and/or with computational statistics, machine learning, and/or pattern classification is desirable;
- Excellent statistical skills are necessary, and strong computer programming skills (LINUX, scripting, and Matlab) are desirable;
- Excellent communications skills in English, both written and verbal;
- Experience in writing (international) publication(s) is a plus but not required.

### Benefits

The base stipend will be equivalent to APA rate, which is currently AUD\$ 26,288 per annum (2016 rate, indexed annually) tax-free for three years, subject to satisfactory progress.

### Selection

Eligible candidates are selected on the basis of academic merit, strength of supporting documentation and the terms of the CRE Optymise scholarship. Interviews will take place with a selection of applicants for final selection.

### Interested?

For more information about the position you can contact Dr. Lianne Schmaal, via telephone number: +61477550490 or email: [lianne.schmaal@orygen.org.au](mailto:lianne.schmaal@orygen.org.au)

To apply, please send an electronic copy of 1) your Curriculum Vitae listing any degrees, awards, prior publications, and work experience, 2) a transcript of your grades, 3) a letter explaining your interest in the position and 4) a sample of your written work (academic writing) to [research@orygen.org.au](mailto:research@orygen.org.au) with the title: **Optymise Orygen PhD**.

**Applications close:** November 20<sup>th</sup> 2016.

**Faculty of Medicine, Dentistry and Health Sciences The University of Melbourne**

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