

PhD Scholarship

A PhD scholarship is currently available in the Environmental and Public Health Microbiology Lab (EPHM Lab) within the Department of Civil Engineering at the Clayton campus, Monash University. This project is funded by the Australian Research Council's DECRA scheme (<http://www.arc.gov.au/ncgp/decra.htm>).

The project

"Interactions between plants and faecal pathogens in urban water treatment: significance of soil microbes, plant debris, root exudates and rhizosphere".

It is important to treat pathogens in stormwater and wastewater before release into downstream recreational waters or harvesting/reuse. Using plants in water treatment improves the removal of pollutants of concern to human and ecosystem health. However, the exact mechanisms which generate this improvement remain unknown, and this is especially true for faecal pathogen removal. The aim of this project is to understand the interactive role that roots, their exudates, plant debris and soil microbes play in faecal pathogen removal in urban water treatment systems. Through this understanding, this project will lead to optimised low-energy, low-tech and low-maintenance treatment systems.

The opportunity

One Australian Research Council Scholarship is available in the Department of Civil Engineering, Monash University, Clayton Campus. The position is for 3 years full-time research towards a PhD. A tax-free stipend is provided (roughly \$28,000/year). There is potential for the applicants to earn an extra \$3,000 (not-tax free) per annum through assistance in undergraduate teaching. Australian citizens, Australian permanent residents, or New Zealand citizens, are exempt from the full tuition fee costs for the duration of candidature. International students are eligible to apply on the condition the awardees have the ability to meet full tuition fee costs for the duration of candidature. Attendance at both national and international conferences could be provided during the course of the degree. The applicant will work with an internationally recognised research group on urban water management and will be associated with the newly established Monash Water for Liveability (<http://www.waterforliveability.org.au/>).

Selection criteria

The student will need to meet ALL of the following criteria:

1. Bachelor of Science degree with H1 Honours (majoring in: Microbiology, Chemistry, Plant sciences, or Biochemistry);

2. Classes, training or experience in ALL of the following areas: microbiology, chemistry and plant sciences;
3. An excellent academic record; and,
4. Interest in working in an applied research team.

Enquiries

Dr David McCarthy, Department of Civil Engineering, Telephone 03 9905 5068 or email david.mccarthy@monash.edu

Applications

Your application should include:

- employment history;
- journal and conference publications;
- a copy of your academic transcript; and,
- the names and contact details of three referees.

Send your application to david.mccarthy@monash.edu.

Closing Date

31st March 2014