Department of Nutrition and Dietetics

2016 PhD projects
Top Up PhD Scholarships

Monash University
Department of Nutrition & Dietetics
Be Active Sleep & Eat (BASE) Facility
1 / 264 Ferntree Gully Road
Notting Hill Vic 3168

Are you interested in taking on the challenge of a PhD?

In 2016, the department is offering Top Up scholarships for students who are successful in obtaining either an APA or equivalent scholarship for their Phd studies. The Top Up's are worth $8000 per year and are tax free stipends. These will be awarded to those who are awarded an Australian Post Graduate Award or equivalent scholarship.

What areas are covered?

Projects are chosen from either clinical or community/population nutrition areas and are supervised by an experienced member of the Nutrition and Dietetics staff. Typical project areas include:

- Clinical dietetics including paediatrics
- Sport and exercise nutrition
- Functional foods
- Sleep, nutrition and metabolism
- Weight loss and maintenance
- Appetite regulation
- Community and population nutrition
- Health Profession Education

Where will I be located for my Phd?

The Department of Nutrition and Dietetics is located at the state-of-the-art 'Be Active Sleep and Eat' (BASE) Facility in Notting Hill (www.med.monash.edu/base). The BASE Facility is dedicated to advance translation of the science of nutrition, sleep and physical activity to enhance the health lifespan of all Australians. The facility comprises of a state-of-the-art iDXA for bone and body composition assessment, sleep laboratory, a commercial kitchen, exercise and fitness studio and consulting suites.

As a PhD student you will have a desk located at the BASE facility. As one of our Phd students you will utilise the equipment and facilities alongside highly qualified and experienced investigators. Opportunity to undertake some tutoring or marking in the second year onwards of your PhD program can be organised if your primary supervisor's consent.

Introduction to the Department of Nutrition and Dietetics

Professor Helen Truby, the head of department, is a nutrition scientist and clinical dietitian with extensive experience in conducting dietary studies including randomized controlled trials and intervention protocols in adults and children. She is located at the 'Be Active Sleep and Eat' (BASE) Facility in Notting Hill, 3km from Monash Health. The BASE Facility is dedicated to advance translation of the science of nutrition, sleep and physical activity to enhance the health lifespan of all Australians. The facility comprises of a state-of-the-art iDXA for bone and body composition assessment, sleep laboratory, a commercial kitchen, exercise and fitness studio and consulting suites. The research areas in the department focus on: clinical dietetics including paediatrics; sport and exercise nutrition; functional foods; sleep, nutrition and metabolism; weight loss and maintenance; appetite regulation; community and population nutrition. These Top Up scholarships are designed for top ranking graduates of a dietetic / nutrition / biomedical sciences courses; or those who have completed a science-based degree with substantial nutrition content to enable them to concentrate on their Phd studies and complete in a timely 3 year period.

Research Leaders in the department include:

Left to right, Professor Helen Truby, Dr Maxine Bonham, Dr Ricardo Costa, Dr Kate Huggins, Dr Claire Palermo. Researcher profiles can be found at:
http://www.monash.edu.au/research/people/profiles/

Applying for a Post Graduate Award at Monash

Please follow the link below to the Monash Institute of Graduate Research pages which contain all the information relating to procedure and application process. Applications need to be lodged in full by the **31st October 2015**. It is timely that potential applicants contact the supervisors of the projects they are interested in to seek further information as soon as possible. You will need to allow at least 3 weeks between contacting the supervisor and submitting the application. PhD Top Up awards will be given to those successful applicants after they have been accepted into the Monash Phd program and accepted their APA or equivalent.

MIGR Website: http://www.monash.edu.au/migr/apply/application/guide/index.html

Please follow the instructions on this MIGR website.

Investigating the impact of deep brain stimulation on body weight, appetite and energy expenditure

Supervisors: Prof Helen Truby; Prof Dominic Thyagarajan
Email: helen.truby@monash.edu

Deep Brain Stimulation (DBS) for management of Parkinson's disease has become a preferred treatment option for those with significant disease. Many benefits such as cessation of tremor and improvements in quality of life are achieved but patients can gain unintentional but substantial amounts of weight post-surgery. Although any surgical intervention of this nature has risks, unwanted weight gain post-surgery is a big issue both because it causes distress to the patient themselves and also because it increases risk of other co-morbidities such hypertension, cardiovascular disease and stroke. As this weight gain has often been preceded by a period of disease related weight loss, it is likely that the weight gained is fat mass which itself drives metabolic derangement. To date, there are no reports of any intervention that has been designed to address this issue. This project will design and test a tailored weight management intervention using an anticipatory guidance framework for patients with Parkinson's disease undergoing DBS. It will further quantify the effect of the intervention utilizing a randomized controlled trial design on a range of outcomes including weight, changes in body fat and fat free mass, subjective and objective measures of appetite and energy expenditure in subjects pre-surgery and 6 months post-surgery. This project will be largely based at Monash Health.

Alcohol: The forgotten component of energy intake

Supervisors: Prof Helen Truby
Email: helen.truby@monash.edu

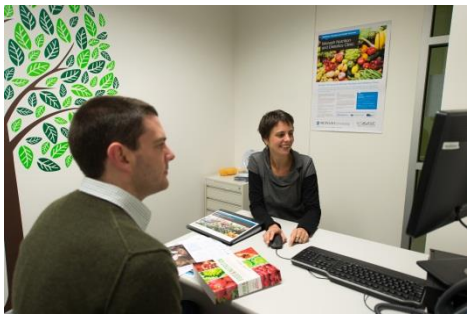
Consumption of alcoholic beverages has a unique place in Australia, but with the rise in obesity, the contribution of alcohol to energy intake is under greater scrutiny. Alcohol contributes more energy per gram than protein and carbohydrate. As such alcohol attains public health importance solely as a discretionary energy source with low micro-nutrient value. Consumption of alcoholic beverages has a short term stimulatory effect on appetite and desire to eat. These physiological processes combined with the food supplied in social situations, which are often high fat snack foods, contribute to passive over consumption of energy *per se*. This project seeks to develop and test food (snack) solutions to reduce the energy availability and increase energy utilization of snacks by altering macronutrient composition. It will test their effectiveness when consumed with alcohol in controlled trials. The long term outcome will be increasing the evidence base for guidelines around which foods can be served with alcoholic beverages that optimize energy utilization and reduce the stimulatory effect on appetite.

The global relevance of basic anthropometric and food intake measures for nutrition screening in a rapidly industrialized society: from under to over nutrition in Chinese children

Supervisors: Prof Helen Truby and Dr Catherine Huggins
Email: helen.truby@monash.edu

Nearly all large epidemiological studies rely on interpretation of basic anthropometric measures (weight, height and waist circumferences) as determinants of growth during childhood. In China today both under and over nutrition co-exist on a scale that is unprecedented. The rapid industrialisation in China has generated an equally rapid change in the food supply in both quantity and variety. Food intake obviously impacts on growth and this project will examine the relationship between food patterns, physical activity and growth over time in early childhood. These project goals will be realized by secondary data analysis of several large Chinese birth cohorts (50,000 – 100,000 subjects). It will be undertaken in collaboration with leading researchers in China. Applicants should have a particular interest and confidence in working with large datasets. This PhD will enable skill development in nutritional epidemiology. Opportunities to spend some periods of time in China exist within this project.

Competency based assessment in dietetics



Supervisors: Dr Claire Palermo; A/Prof Margaret Hay
Email: claire.palermo@monash.edu

Producing a competent nutrition and dietetics workforce is essential to maintain and improve the health of Australians. The Dietitians Association of Australia National Competency Standards for entry to the profession (May 2009) provide a framework for the preparation of dietitians for entry into the workforce in Australia. Australia's education of dietitians is unique to other health professionals in that students are professionally prepared to practice across three settings: individual patient management, food service management using quality improvement activities in institutional settings; and community/public health nutrition, which includes health promotion, nutrition policy and improving the food supply. Students must demonstrate competence and be assessed in all three settings in order to successfully graduate from accredited dietetics programs. Current assessment is based on history rather than evidence and while it may be producing a workforce that is competent, there is a need to create assessment methods and a system that are feasible and more student centred yet have educational effect. This project will build on work that is aiming to build the capacity of assessors to apply best practice in competency-based assessment. The research will gather evidence of the feasibility, reliability, validity and acceptability of innovative assessment systems with the aim of creating a body of evidence to inform assessment practice in dietetics.

Should women with iron deficiency be assessed for cardiovascular risk?

Supervisors: Dr Kate Huggins; Dr Tracy McCaffrey
Email: kate.huggins@monash.edu

For women in Australia, cardiovascular disease is the number one killer. Women are just as likely to suffer a heart attack as men. However following an acute cardiac event, younger women (pre-menopausal) have worse outcomes. Why? This is still relatively unknown. There is some emerging evidence that iron deficiency (with or without anaemia) is linked with poor recovery from acute cardiac events. Pre-menopausal women are a high risk group for iron deficiency. Could this explain the poorer prognosis of pre-menopausal women following an acute cardiac event? This PhD will explore the association between low iron status and cardiovascular risk in pre-menopausal women.

First study: Do iron deficient women consume a dietary pattern consistent with increased cardiovascular risk? (e.g high salt, high saturated fat). Using a secondary data set you will identify dietary patterns of young Australian women with and without iron deficiency.
Second study: Observational study assessing cardiovascular risk profile of women with iron deficiency.
Third study: This will largely be informed by the findings of the first and second studies. It could involve a dietary intervention to assess if dietary advice to improve iron status can also improve women's cardiovascular risk profile.

To ensure the successful completion of this research program within University timelines, a candidate for this PhD program would be expected to develop relationships with stakeholders to facilitate recruitment into the second and third study (this may include organisations such as the pathology services, general practioners, and health services). Therefore key skills required include high level interpersonal skills, autonomy and organisational skills. Knowledge of statistical analysis is required and experience with factor analysis is desirable but not essential.

The role of external and internal body cooling on exertional-heat stress induced gut pertubations

Supervisors: Dr Ricardo Costa
Email: ricardo.costa@monash.edu

Physical exhaustion has a profound negative impact on the gastrointestinal system. Exercise-induced splanchnic hypoperfusion, hypoxia, and mechanical jarring have the potential to damage and disturb normal functioning of the gastrointestinal tract; especially if the exercise is performed in hot environmental conditions. Such gastrointestinal disturbance has been linked to intestinal inflammation, increased permeability, and symptoms that can lead to episodes of sub-clinical and clinical

significance. To date limited research has been conducted on investigating prevention and management strategies of exertional-heat stress induced gut perturbations. Taking into account the association between core body temperature and mechanisms that induce gut disturbances in response to exertional-heat stress; this novel PhD research program aims to determine if external cooling prior to exertional-heat stress and internal cooling during exertional-heat stress may contribute towards prevention and management strategies.

Faculty of Medicine, Nursing and Health Sciences
Department of Nutrition and Dietetics Postgraduate Research Top Up Scholarship
Conditions of Award 2015/2016

These conditions should be read in conjunction with Faculty of Medicine, Nursing and Health Sciences 2014 Scholarship Conditions of Award Faculty Postgraduate Research Scholarship.

- The award is offered to pursue internal, full-time candidature in a higher degree by research (HDR) program in the Department of Nutrition and Dietetics (org unit 50053649), Faculty of Medicine, Nursing and Health Sciences, Monash University.

- The awardee must be eligible for admission as a candidate for a HDR program as above and in receipt of a APA or equivalent higher degree research scholarship

- The stipend of the Top Up scholarship shall be paid at the rate of $8,000 per annum which is in addition to the APA or equivalent award.

- The Top Up scholarship shall be tenable for a maximum of 3 years (doctorate) subject to the scholarship holder making progress to the satisfaction of his or her supervisor and the Head of Department reported annually. Satisfactory progress will be defined documenting minutes of supervision meetings, completing tasks in agreed timeframes and completing requirements of confirmation as defined by MIGR. The scholarship may be suspended if the candidature has not made satisfactory progress or breeched any conditions of the APA or equivalent research scholarship.

- The duration of the award will be reduced by any periods of prior study undertaken towards the degree prior to the commencement of the award. A maximum of 4 weeks recreational leave may be taken in any one calendar year. Other types of leave as documented in 4.1.2 MIGR Research Degrees Handbook apply. The scholarship will not be paid and may not be reinstated after a period of approved leave.

- The scholarship holder shall make monthly reports on his or her work to his or her supervisor, and participate actively in the academic life of the academic department.

- A candidate making satisfactory progress may apply for an extension if both the Department and the academic unit are agreeable and if funding is available. An extension will normally only be approved where research has been delayed by circumstances beyond the candidate's control and where such delays could not have been reasonably anticipated at the commencement of candidature. The grounds for an extension must be related to the study itself and not of a personal nature.

- Should the awardee subsequently be offered another Scholarship, the departmental top up scholarship may be terminated. The candidate is required to notify the Faculty's Research Degrees Office immediately of any change to their enrolment or scholarship which renders them ineligible to continue receiving the award. Failure to do so will result in the candidate being required to return any overpaid amounts to the Faculty.

- An award holder is permitted, with the approval of his/her main supervisor, to undertake a strictly limited amount of paid employment throughout the year, being no more than 15 hours of work on average in any one week. Up to a maximum of 8 hours only on average of this employment may be undertaken during normal working hours (9 am – 5 pm, Monday to Friday).

- An award holder is required to conform to Monash's regulations and statutes (see www.monash.edu.au/pubs/calendar/statutes). Attention is drawn in particular to Statutes 4.1 ('Discipline'), 5.2 ('The university library'), 5.3 ('The Computer Centre'), 6.3 ('Exclusion for health reasons') and 11.2 ('Intellectual property') and regulations made thereunder.

- While every effort has been made to comply with the *Income Tax Assessment Act 1997* (Cth) so that the stipend is not taxable in the hands of the recipient, no further guarantee can be given by the University. It is the responsibility of scholarship awardees to seek their own taxation advice.

STUDENT AGREEMENT

I have read these conditions carefully and agree to abide by them and any subsequent amendments which may be made during the tenure of my award.

Name:

Signature: _____ **Date:** _____

Please return this page only to the Department of Nutrition and Dietetics. Electronic copies are acceptable.