



THE UNIVERSITY OF
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AIM HIGH

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FACULTY OF HEALTH RESEARCH NEWSLETTER

Did you know?

2009 Block Funding Expenditure

All 2009 Block Funding Expenditure needs to be **committed** in Technology One by 30th November 2009.

2008 Rolled Over RTS Funds

Any RTS funds that were rolled over from 2008 to 2009 must be **spent** by the 30th November 2009.

Human Research Ethics & G Numbers

If you are submitting a human research ethics application for research that is the subject of a grant or other funding contract/agreement administered by the UoN, it is important that you provide details of the Research Office Reference number (or G number) in your ethics application. Recent updates to the IT systems supporting research administration now mean that there is a direct interface between the ethics and grants administration systems. Failure to provide a G number (where requested) will delay the process of confirming the link between a grant and an associated human ethics approval which in turn is likely to delay the release of funds.

Ease of Research Project

For updates on the Ease of Research Project see <http://www.newcastle.edu.au/unit/research-services/ease-of-research-project-eorp.html>

Refocus@UoN

For information on the Refocus@UoN Program see <http://www.newcastle.edu.au/unit/research-services/refocus-uon.html>

Manual of Research Policies

An electronic register of policies relating to research conduct, research management, intellectual property and occupational health and safety is available at <http://www.newcastle.edu.au/unit/research-services/codes-policies-guidelines.html>. All researchers should ensure that they are aware of these policies that relate to their area of research. Supervisors of research higher degree students should ensure their students are also aware.

If you would like to contribute to this Newsletter please contact Shirley.Savy@newcastle.edu.au

ERA UPDATE

The *Excellence in Research for Australia* (ERA) initiative is a new research quality and evaluation system developed by the ARC in conjunction with the National Health and Medical Research Council (NHMRC) replacing the Howard Governments Research Quality Framework (RQF). ERA assesses research quality within Australia's higher education institutions using a combination of indicators and expert review by committees comprising experienced, internationally-recognised experts across eight discipline clusters. The outcomes of the ERA assessments will identify areas of National and International research strength and be a core element in determining the allocation of the \$300 million Sustainable Research Excellence fund.

Whilst it is likely that researchers from the Faculty of Health will have work recorded in all 8 clusters, the 2 principle clusters for faculty researchers are Cluster 7: Biomedical and Clinical Health Sciences and Cluster 8: Public and Allied Health.

2 trial submissions were completed earlier this year and preparations are now underway to collect information for the full submissions to be conducted in 2010. Between now and the Christmas shutdown, members of the ERA team will be available to visit and talk to researchers about ERA and assist in collecting information and entering this into Research Portfolio Manager (RPM). Experience from the trial shows that generally it only takes 15 – 20 minutes to gather all the information needed to satisfy the ERA requirements. Of particular interest to the ERA team is ensuring that all of your publications for the ERA assessment period of 2003 – 2008 are recorded in RPM and that the field of research codes you have been assigned to are correct.

If you have planned a school, discipline, centre etc. meeting in the coming months please contact Fiona Feeney (ext 16556) to arrange for a member of the ERA team to attend.

Steve Hannan
ERA Project Manager

SCHOOL OF HEALTH SCIENCES

The school has fostered the development of manuscript preparation skills with 30 staff and students attending a writing workshop in September organised by the Research Committee and run by A/Prof Clare Collins. In 2010 the Research Committee will focus on skills related to delivering specific presentations.

Two students from Nutrition and Dietetics received DVC-R Honours Scholarships.

- Bronwyn Berthton - Validation of a child food frequency questionnaire using red blood cell membrane fatty acids
- Rebecca Martin - Who is the better reporter of a child's dietary intake? A comparison of dietary intake reported by children aged eight to 11 years and their parents.

The news represents growth and success in the Honours program in Health Sciences. A number of Honours students from the graduating Class of 2008 presented at the recent Australian Physiotherapy Association National Conference Week with Rachel Odelli, being awarded, one of only two student prizes for best oral presentation at the Musculoskeletal Physiotherapy Association Conference during this conference week.

At the National Scientific meeting for Radiographers and Radiation Therapists held in Brisbane in October, in conjunction with the Radiology, Radiation Oncology and Medical Physics professions, many MRS RHDs presented papers based on their research. Papers were given by Masters students John Tessier, Shaun Grady and Shelia Moran, and by PHD student Naomi Findlay.

Fiona Hawke recently received the Best New Investigator Award at the Australasian Podiatry Council Conference, Gold Coast, Australia for the presentation 'Custom-made foot orthoses for the treatment of foot pain: a systematic review', which was based on the paper: Hawke F, Burns J, Radford JA, du Toit V. Custom-made foot orthoses for the treatment of foot pain. *Cochrane Database of Systematic Reviews* 2008, Issue 3. Art. No.: CD006801. DOI: 10.1002/14651858.CD006801.pub2. Available online at: www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD006801/frame.html

NUTRACEUTICALS RESEARCH GROUP

Redefining platelet response to omega-3 fatty acids – Do we all benefit equally?

Increased platelet aggregation is an early event in the development of cardiovascular disease and it is a major cause of heart attacks, stroke and thrombosis. Blood thinning agents such as aspirin and warfarin are becoming increasingly important for the management of platelet aggregation activity; however the current pharmacological strategies have presented limitations with potentially severe adverse effects. A safe and efficacious, non-pharmacological approach could be by supplementation with omega-3 fatty acids. The cardio-protective effects of consuming oily fish high in eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)

were demonstrated almost 30 years ago by Greenland Eskimos who had a much lower incidence of heart disease due to their marine origin diet. However, over the years, conflicting reports have resulted in controversy over the effects of omega-3 fatty acids on platelet function. Professor Manohar Garg and his PhD student Melinda Phang (Nutraceuticals Research Group, Cardiovascular Research Program, HMRI) have recently demonstrated that inhibition of platelet aggregation by individual omega-3 fatty acids is gender-specific. Indeed gender-based differences influencing platelet response to treatment have not been accounted for in previous studies as most were conducted in a male population or unequal gender groups. In this study, blood samples were collected from an equal number of healthy male and female subjects and incubated with either DHA, DPA (docosapentaenoic acid) or EPA before stimulation with collagen to measure platelet aggregation. When data for all subjects was combined, all fatty acids effectively inhibited platelet aggregation, however the inhibitory effects of EPA was significantly more potent than either DPA or DHA (52%, 34%, 36% respectively).

Interestingly, when the data was stratified by gender, the same pattern of inhibition was observed in males, with EPA the most potent inhibitor of platelet aggregation. However in females, all omega-3 fatty acids were equally effective in inhibiting platelet aggregation, with DHA and DPA being more inhibitory in females than in males. The results therefore suggest that males would benefit more from supplementation with EPA, while females would benefit from all the omega-3 fatty acids. This has been the first study to demonstrate that significant gender differences exist in platelet aggregation in response to DHA, DPA and EPA which may in part explain the controversy in the literature. Further in vivo studies are in progress to follow-up on the results. The newfound knowledge that males and females benefit differently according to the type of omega-3 fatty acid supplementation may offer maximum cardiovascular risk reduction for both gender groups.

Phang et al. (2009) Prostaglandins, Leukotrienes & EFA; 81:35-40

SCHOOL OF MEDICINE & PUBLIC HEALTH

Grant Writing Workshop – Newcastle – December 5th

Tim Haydon, from The Write Media Network, will provide a customised workshop on writing grant applications:

- NHMRC people funding: Training Fellowships, Career Development Awards
- NHMRC project funding: Program Grants

This workshop is available, at no cost, to SMPH Research Higher Degree students and SMPH Early Career Researchers. Please contact smph-research@newcastle.edu.au for more information.

Writing Skills Workshop, Orange - November 18th & 19th

Tim Haydon, from The Write Media Network, will provide a customised workshop on:

- Writing scientific articles; structure, argument, style
- Publication processes and publication strategies
- Developing papers for publication

This two-day workshop is available, at no cost, to SMPH Research Higher Degree students and SMPH Early Career Researchers. Please contact smph-research@newcastle.edu.au for more information.

**RTS Student Support Funding 2008 – November 30 2009
Deadline for Expenditure**

Please note that all money remaining from the **2008** RTS Student Support allocation needs to be spent before **30th November 2009**. Any funds remaining after this date will no longer be available.

You may have already accessed some or all of this allocation. If you are unsure whether you have funds remaining please contact your Research Group Administrator.

Your Principal Supervisor will need to approve and authorise RTS expenditure and transactions.

If you are unsure who is administering your RTS Student Support Allocation or if you have any queries please do not hesitate to contact the Research Administration Office, smph-research@newcastle.edu.au.

SCHOOL OF NURSING & MIDWIFERY

School of Nursing and Midwifery Honours

The School of Nursing and Midwifery restructured its Honours program in 2007 to provide a flexible program including a mid-year enrolment option. This was followed with an active marketing strategy including annual Honours information evenings directed at high performing undergraduate students. These initiatives have seen the honours enrolments expand in the school of nursing from one in 2007, to three in 2008 and eight in 2009. Students are involved in a variety of studies including multi-disciplinary and mixed methods projects. The new program has supported three candidates to completion, all of whom have attained first class honours and two of whom have been awarded the faculty medal. One student has commenced her PhD studies and is currently undergoing confirmation while the other two students have applied to undertake PhD studies. The School of Nursing and Midwifery Honours program promises to enhance the research and practice profile of the Faculty of Health and the University of Newcastle in the years to come.

In conjunction with the School of Nursing and Midwifery, the Centre for Practice Opportunity and Development (CPOD), Hunter New England Health offers scholarships to the value of \$10,000 comprising (\$5,000 by each institution) to support students undertaking Honours studies in Acute Care. Honours projects must be clinically based research projects that can be completed in 1 year full time or 2 years of part time study and are linked to existing programs of clinical nursing research. Students may focus on a clinical problem, symptom management, patients' or relatives' experiences, re-design of a nursing activity or evaluation of a change process.

Examples of current CPOD projects include;

- Assessment and management of pain in older people
- End of life care for older people
- Prevention and management of delirium
- Needs of relatives of hospitalised older people
- Challenges confronting clinicians in rural health care contexts
- Attitudes to, or participation in interprofessional practice

The Centre for Education and Nursing Research in Child Health (CENRiCH) is a shared endeavour between Kaleidoscope, Child and Youth Health Network, the Hunter Area Health Service and the School of Nursing and Midwifery, The University of Newcastle. The purpose of the Centre is to design and deliver education programs, engage nurses in

professional development and support and complete clinically based research.

In addition to CPOD, CENRiCH offers one \$5000 scholarship annually to a registered nurse, enrolled in the Bachelor of Nursing (Honours) Degree through the School of Nursing and Midwifery. The proposed research must focus on neonates, paediatrics, young people and/or families resident within the Hunter New England Area. Each recipient of this scholarship is required to present a paper on the outcome of his/her study at the annual Kaleidoscope Nurses' Seminar.



CARD (Centre for Asthma & Respiratory Disease)

The accumulation of white blood cells in the lungs of asthmatics results in chronic inflammation and the induction of disease. Current therapies use inhaled steroids to suppress the inflammatory response and relieve asthma symptoms. Steroid exposure, however, can have long-term harmful side effects and new treatment strategies are urgently required. In the October 20, 2009 early edition of the Proceedings of the National Academy of Science, USA (<http://www.pnas.org/>), we show that microRNA molecules may have the potential to act a new class of anti-inflammatory agents for the treatment of asthma and thus many chronic inflammatory conditions. MicroRNAs are very small molecules, and until recently their biological role remained largely unknown. Our observation is the first to demonstrate the potential of microRNA as anti-inflammatory compounds and provides a new pathway for the potential treatment of asthma. The work was performed by a team of young scientist lead by Professor Paul Foster and Associate Professor Joerg Matters at the University of Newcastle and was funded through the CRC for Asthma and Airways and the NHMRC of Australia.

NAME 5 2009

This year's Newcastle Asthma Meeting was held on the 21st and 22nd of October and was a great success. This is 5th annual meeting and all have been funded by AstraZeneca. The conference continues to go from strength to strength and has grow from 40 attendees from Newcastle in 2005 to 100 in 2009 from throughout Australia as well as the US and Canada. It is now one of the premier asthma meetings in Australia. This year's invited speakers were:

- ❖ Professor Monica Kraft, Director of the Duke Asthma, Allergy & Airway Center, Duke University Medical Center, Durham, NC, USA
- ❖ Professor Jay Kolls, Professor of Genetics and Pediatrics, LSU Health Sciences Center, New Orleans, LA, USA.
- ❖ Professor Louis-Philippe Boulet, Woolcock Institute for Medical Research, Sydney, and Institut universitaire de cardiologie et de pneumologie de Québec, Canada.

The conference highlights clinical problems and interventions and important current areas of experimental and clinical

research. It brought basic scientists and clinicians together from asthma research groups to foster collaborations. Introductory talks were given by more senior researchers but most talks were presented by post-doctoral fellows and senior PhD scholars to highlight the research that is being conducted at the coal-face. We strongly encourage interactions with potential collaborator(s) both basic scientists and clinicians. Talks enabled speakers to discuss the kind of work they do, so that the potential for collaboration was highlighted.

We are already looking forward to next years meeting.



FROM THE DESK OF THE DHoF RESEARCH

New Top-Up Scholarship in Cardiovascular Health Research

Mrs Jennie Thomas has changed the conditions of the Emlyn & Jennie Thomas Postgraduate Medical Research Scholarship Fund to establish a top-up scholarship in perpetuity to be awarded to postgraduate research students entering the second year of their candidature. The scope of research to be supported has been broadened to include "research in any area of direct relevance to understanding the causes of cardiovascular disease, or the prevention, diagnosis or treatment of cardiovascular disease or recovery of function and health following a cardiovascular event or its treatment". The scholarship will be worth \$10,000 pa and the intent is to award at least one scholarship each year. A call for applications for this scholarship will be made in November.

'Tis the Season for Celebration

We have multiple reasons to congratulate our colleagues and postgraduate students for their achievements and excellence in research. NHMRC and ARC have now announced most of the outcomes of application for grants beginning in 2010. The Faculty Staff Awards for Research were announced on 10th September and the 10 of the Best Research Showcase highlighting the achievements of our postgraduate research students was run on 25th September. Please join me in congratulating recipients of these grants and awards that are listed below.

NHMRC Project Grants

Only grants administered through the University of Newcastle are listed.

- BONEVSKI, PAUL, GIRGIS & D'ESTE, RCT of a client-centred, caseworker delivered smoking cessation intervention for a socially disadvantaged population \$130,550
- CAIRNS, SCOTT, TOONEY, ROSTAS, & BRICHTA, Molecular and cellular characterisation of schizophrenia associated dysfunction in microRNA biogenesis \$478,500
- GIBSON, Gabapentin in the treatment of idiopathic chronic cough: a randomised double-blind
- placebo-controlled trial \$319,750

- GRAHAM, Spinal mechanism underlying arthritic joint pain \$416,500
- ISBISTER, BUCKLEY, DE SILVA, DAWSON & LALLOO, Does Fresh Frozen Plasma in Russells viper bite coagulopathy reduce the dose and duration of antivenom therapy? \$600,500
- JAMES, EWALD, JOHNSON & PLOTNIKOFF, Efficacy of exercise physiologist counselling in primary care patients: a RCT of two pragmatic approaches \$896,588
- KELLY, STAIN, LEWIN, CARR, FRAGAR, PERKINS & FULLER, Living in a rural community: A longitudinal study of the course and outcome of mental health and wellbeing. \$805,650
- LAVER, DULHUNTY, & BEARD, Regulation of calcium release channels (RyR2) in healthy and failing hearts \$325,575
- MADSEN, Regulation of Progesterone Action in Human Parturition. \$303,750
- MATTES & FOSTER, The role of microRNAs in the regulation of antiviral and inflammatory responses during experimental rhinovirus infection \$583,500
- PHIPPS & SIMPSON, The pathogenesis of distinct endophenotypes of asthma is underpinned by the collaborative activation of specific PRRs. \$654,875
- SMITH & MAITI, Estrogen Receptors and the Onset of Labour \$324,900
- WIGGERS, CAMPBELL, WOLFENDEN, BOWMAN & FREUND, Effectiveness of a resilience intervention in reducing smoking and alcohol consumption among secondary school students \$1,432,750

NHMRC Partnership Grant

SANSON-FISHER, LEVI, PAUL, PARSONS, ATTIA, D'ESTE, LINDLEY & BLADEN Evaluating the effectiveness of a strategy to increase the adoption of best evidence practice. A cluster randomised trial in acute stroke care. \$772,950

NHMRC Career Development Award

COLLINS, Optimising dietary intake and nutrition and weight related health outcomes across the life stages \$417,000

ARC Future Fellowship

PARSONS Prediction of tissue fate and functional outcome in acute ischemic stroke with advanced imaging analysis - experimental validation and translational studies \$686,400

Faculty of Health Staff Awards - Research Award Recipients

- A/Prof Derek Laver (SBSP) - For excellence in research involving the application of basic science to clinical problems involving the heart.
- Dr Helen Stain (CRRMH) - Has provided a distinctive contribution in the leadership of a successful research development program in rural mental health research.
- Dr Tracy Burrows (SHS) - As a role model for Early Career Researchers, Tracy takes every opportunity to disseminate findings and enthuse graduates to pursue a research career.
- Ms Shirley Savy (General Staff Award) - Excels in her role as Research & Research Training Officer and has ensured that the Faculty has a corporate public face by organising Faculty events and marketing publications.

10 of the Best Research Showcase Winners

Oral Presentation Winner - Gerard Kaiko (SBSP/CARD) - Respiratory Syncytial Virus contributes to asthmatic pathology through a unique IL-25-mediated mechanism

Oral Presentation R/Up - Melissa Walsh (SBSP/CBMHR) - Evidence for a critical period in the development of excitability and potassium current in mouse lumbar superficial dorsal horn neurons

Poster Presentation Winner - Ama-Tawiah Essilie (SBSP/CARD) - Haemophilus influenzae induces IL-17-mediated neutrophilic allergic airways disease

Professor John Rostas

Deputy Head of Faculty Research