This is my last edition of the Bulletin as my secondment to this Office finishes today and I will be returning to the School of Human Movement Studies. The bulletin will continue and remain a great source of information, resources and support, so be sure to forward anything you would like to share. It is requested that all email communication with this Office be made via the generic email address: facedrgso@csu.edu.au.

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- **2013 Welcome**

A warm welcome to our new candidates from the School of Teacher Education as listed below, and wishing all of our doctoral candidates a very special 2013. I am hoping your various projects run to schedule and that writing blocks are rather infrequent or even non-existent. I look forward to catching up with many of you at the Graduate Studies Forum in September to be held in Bathurst. This is a unique opportunity to rub shoulders with a host of experienced supervisors, budding supervisors, and other candidates who may be encountering similar study challenges to you. It can be very useful to engage in conversations with your peers as a way of resolving some of these challenges, so please take up this opportunity if you are able.

On behalf of the Faculty HDR students, I would like to thank Dale Smith for her sterling work in the Office over the past 6 months. Dale has been able to step in to a very busy and demanding role seamlessly and will be sorely missed by all. Dale will return to the School of Human Movement Studies. We will also be losing Nicola Rybarczyk from the Office too. Nicola has been able to secure a more permanent appointment in another section of the University and we wish her the very best. Nicola has been a terrific helper and a fantastic executive assistant, so it comes as no surprise that she has found another position at CSU.

*Brian (Sub Dean – Graduate Studies)*

New candidates commencing this Session are:

- **James Deehan** – working with David McKinnon and Lena Danaia.
- **Maureen Moore** – working with Jane Mitchell and Sara Murray.
- **Sarah Masso** – working with Sharynne McLeod and Jane McCormack.

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Endorsement of Candidature Seminars

The following candidate will be presenting their endorsement of candidature seminar as follows:

Caroline Robertson – School of Human Movement Studies 11.00 a.m., 7 March, 2013

The role of brain activity in the regulation of exercise performance

The contribution of the brain to the limitations of exercise is a strongly debated topic (Noakes and Marino, 2007, Saltin and Calbet, 2006, Noakes, 2012). Many years of Sport Science research examining the role of the cardiovascular system and musculature has dominated our understanding of exercise physiology, whilst the brain as an organ and its role in the limitation and regulation of exercise has been largely omitted. The central governor model (Noakes, 1997) and its successors; anticipatory regulation (Ulmer, 1996, Marino, 2004), complex systems integration (St Clair Gibson and Noakes, 2004) and the psychobiological model (Marcora, 2008) advocate a role of the brain in setting a level of intensity such that athletic performance is performed at optimal intensity without catastrophic failure of the organism. The neurobiology of these high level behavioural processes, however, remains virtually unexplored. Our current knowledge of central processes occurring during exercise has been derived from neural muscle recruitment (EMG) (Kayser et al. 1994, Dai et al. 2001), pre and post exercise measures of Transcranial Magnetic Stimulation (Bawa and Lemon, 1993, Taylor and Gandevia, 2001), peripheral nerve stimulation (Macefield et al., 1993, Gandevia, 2001,) and the role of the monoamines (Klass et al. 2012). Newer non invasive techniques to measure brain activity during dynamic exercise currently include cerebral oxygenation levels via near infrared spectroscopy (NIRS) and electrical activity of neurons via electroencephalography (EEG). Both these techniques lend themselves to the measurement of real time brain activity and can therefore help to answer questions surrounding the role of brain activity during exercise regulation.

Neural activity measured at the cerebral cortex can provide us with indicators of the intensity of neural signals (Hilty et al., 2011) as well as the regions of the brain that are activated by the specific stimulus. The EEG response to some exercise models have been characterised but an understanding of EEG response to self paced exercise is not yet known. The use of cerebral oxygenation measures during exercise have previously been used to characterise the importance of oxygen availability on self paced exercise performance (Billaut et al., 2010) and on the ability to sustain maximal intensity exercise (Bhambani et al., 2007). Further to this, the use of hyperoxia and hypoxic exercise conditions have been used to provide data examining the role of oxygen availability on cerebral function. However the two measures have yet to be combined in the measurement of brain responses to altered environmental oxygen availability. The first two studies will therefore examine brain activity responses to self paced exercise and the impact of altered environmental oxygen availability.

An examination into the role of the brain would not be complete without a consideration of the subcortical regions. Previous research has examined the activation of subcortical areas, particularly the reward centres of the brain, located primarily in the Limbic system. The motor cortex has been shown to be activated by the reward pathway, suggesting that sufficient motivation provided by a reward allows an increase in muscle recruitment via these pathways. Study three will therefore manipulate motivation levels to assess the impact of altered motivation on exercise performance. The aim of this thesis is therefore to examine how the brain operates during exercise performance. Initially how self paced exercise differs from previously existing exercise models and following this, examine brain activity in environments where we consider the cerebral metabolic rate to be challenged and therefore impact on exercise capacity and cognitive function. Finally the subcortical centres of the brain will be examined by the concept of reward and motivation.

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Supervisor Seminar Series

Professor Rob Robergs will lead a session in the ongoing Faculty of Education Supervisor Seminar Series, titled 'Lingering Concerns About HDR Supervision', on 11 April, 2013 at 1.00pm.

The session will be held in the Cresswell Room, Bathurst, with video links to the following sites:

- VC Admin DU 708
- VC Edu SIS WW 769
- VC Edu MSE TH 823
- VC Edu SOE2 WW 803.

If you want to join the session by either MS Communicator or telephone, please use MCU4/dial (693)34757 and the conference ID 403. A bridgit session will also run – SUPERVISOR.

Videos of the previous sessions are available on the Faculty of Education’s Research site - http://www.csu.edu.au/faculty/educat/graduate/supervisor-series. Rob’s session will also be video recorded if you are unable to attend and will be available shortly afterwards at this link.

Research Writing Interact Site

A reminder that the Research Writing Interact site is for research students at all levels and staff who work with research students to find resources, keep in touch with workshops and events, ask for information and share experiences. The site can be accessed at Interact (http://interact.csu.edu.au/portal).

Student Representation on Albury and Wagga Wagga Campuses – School of Education Research Committee

With the merging of the Murray School of Education in Albury and the School of Education in Wagga Wagga, a new combined Albury-Wagga School of Education Research Committee was formed in 2012. For the first time, student representatives were introduced to the Committee to canvas research student opinions. Brooke Scriven in Wagga Wagga and Nikki Masters in Albury, are the current research student representatives. The Committee meets approximately every two months to discuss matters pertaining to research within the School. This includes co-ordinating the SOE Research Seminar Series and using funds dedicated to research, such as organising visiting scholars and the recent 3-day writing workshop with Dr Claire Aichison from the University of Western Sydney.

Research students in the Albury-Wagga School of Education are invited to contact Brooke and/or Nikki regarding any queries concerning research within the School, to be addressed at the Committee meetings. The next meeting of the Committee will be held in April. They look forward to hearing from you.

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HDR Casual Employment

HDR candidates are encouraged to forward curriculum vitaes to respective Head of School as there may be opportunities to supplement income through teaching, marking, and/or research assistance work. Given that it is difficult at times for Schools to find appropriate casual (sessional) and RA staff, your skills and expertise could be of assistance.

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E-Research Showcase @ CSU – 12 March, 2013, Wagga Wagga Campus

eResearch describes a diverse range of research activities, including research collaboration through ICTs; visualisation technologies; research data capture and sharing; data management solutions; and high-performance computing. eResearch applications span all disciplines at CSU.

An eResearch Showcase has been planned and will feature presenters from Intersect, ANDS and CSU, sharing information about our eResearch capacity, the range of support that is available now and our scope for future growth. This event is likely to be of interest to a broad section of the university - researchers, research students, research leaders, information and data professionals.

For more information about the program for the day, see http://www.csu.edu.au/research/home/eresearch-showcase.

Date: 12 March, 2013 Time: 11.00 a.m. – 2.30 p.m.
Venue: National Wine and Grape Industry Centre, Wagga Wagga campus

All are welcome, however registration is required for planning and catering purposes.

Register for this event by 7 March, 2013, at http://www.csu.edu.au/research/home/eresearch-showcase

* NB: for people unable to attend, sessions will be recorded using Podium Capture. Access to recordings will be available through the Research Office site.

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New book – Dr Kirsty Williamson

Dr Kirsty Williamson, of the School of Information Studies, is the lead editor of a new book Research Methods: Information, Systems, and Contexts, which is about to be published by Tilde University Press. Kirsty also wrote nine of the 22 chapters, one with Professor Lisa Given and Dr Paul Scifleet of SIS. A number of other SIS staff members are authors: Dr Mary Anne Kennan (3 chapters), Dr Kim Thompson and Dr James Herring, all of whom were also reviewers along with Dr Sigrid McCausland and Dr Joy McGregor. The foreword was written by Professor Given. The other editor is Associate Professor Graeme Johanson of Monash University where Kirsty also works.

The book launch, jointly sponsored by Monash and Charles Sturt Universities, will be held at the Computer Museum, Caulfield Campus, Monash University on 27 March, 2013. The launch will be performed by Professor Edwina Cornish, PROVOST and Senior Vice-President, Monash University. Several SIS staff will attend the launch. We warmly extend an invitation to CSU Faculty of Education staff members who happen
to be in Melbourne on 27 March to attend. Please email graeme.johanson@monash.edu to receive an invitation as a formal acceptance is necessary.

International Conference on New Horizons in Education


2013 ASICS Conference of Science and Medicine in Sport

Sports Medicine Australia will present the 2013 Asics Conference of Science and Medicine in Sport (ACSMS), on 22 – 25 October, 2013, in Phuket, Thailand. ACSMS is a multidisciplinary meeting for professionals with an interest or involvement in sports medicine, sports science, physical activity promotion and sports injury prevention. Abstract submissions are now open with a deadline of 15 April, 2013, see details here. The 2013 Conference will again be offering The Australian Sports Medicine Federation Fellows Awards. All papers submitted by the 15 April deadline may be eligible for an award. To view the awards and associated prizes on offer, please go to the awards page of the conference website.

This week in our social media

The ThesisWhisperer: Understanding Academic Literature
Logic vs Emotion in Academia
10 tips for being a happy thesis writer

Which Queen member has a PhD?

Brian May – in 2007, gained his PhD in astrophysics.

The man who wrote "We Will Rock You" also wrote A Survey of Radial Velocities in the Zodiacal Dust Cloud.

You probably know the words to only one of these.

(Memories – Sydney concert many, many years ago ...)

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All the best for your studies, and for now – goodbye!

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http://www.csu.edu.au/faculty/educat/research/

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