IMAGINING A BETTER FUTURE FOR CHILDREN WITH DEVELOPMENTAL COORDINATION DISORDER

Dr Jacqueline Williams is a Postdoctoral Research Fellow with the Institute for Sport, Exercise and Active Living. She is currently researching motor imagery and impairment in children. Specifically, Jacqueline works with young people who are commonly termed “clumsy kids,” affecting 5-10% of children. These children have a condition known as developmental coordination disorder (DCD). This is a field that has been largely overlooked by mainstream research, but Jacqueline is beginning to change this trend.

Jacqueline’s work at VU investigates how motor control develops in “typical” children with the aim of determining whether children who have difficulties are simply delayed, or whether their development takes a different path. In the long term, she hopes this will indicate whether a child only needs a little extra attention to catch up, or more specialised assistance.

“It is often thought that clumsy kids will just ‘grow out of it’,” Jacqueline says. “However, without attention, motor control impairments can affect daily living, psycho-social development, self-esteem, behaviour and have serious long term effects.”

A significant part of Jacqueline’s time is spent developing a research project using transcranial magnetic stimulation (TMS). “It’s a scary name,” Jacqueline admits, “but the research that will come from it is invaluable”. The procedure involves holding a magnetic coil over the head of the subject to stimulate neurons in the brain. The TMS is used to map the ability to “imagine movements”. There are many indications that motor imagery is strongly linked to the ability to put this imagining into physical movements. The hope is that improving motor imagery may also improve motor skills. Jacqueline received an internal grant from the VU Research Development Grants Scheme (RDGS) to develop this work in conjunction with a colleague at the Manchester Metropolitan University in the United Kingdom last year. The intention is to begin working with children on the study later in 2011.

Jacqueline has also spent time working with children who have ADHD and show signs of ‘clumsiness’. MRI scans are used to detect what areas of the brain are active during ‘motor imaging’, allowing researchers to see how different areas of the brain are working together. Jacqueline’s research is the first to look at the different reactions to particular tasks while the kids are in the MRI machine. The scans take up to 45 minutes, which Jacqueline admits is a long stretch for children in the study. In comparison, the shorter, portable TMS procedure involving only a cap placed on the head is a simpler option. The TMS, while also looking at brain activity, is more concerned with one particular area of the brain and focuses on the strength of brain activity, rather than the area it is originating from.

Canada and the UK, in particular, have a great deal of support for children and their families dealing with these problems. However, Jacqueline states that “the issue is under-recognised in Australia” but she hopes this will not always be the case. Jacqueline sees her research as a way of drawing attention to an important issue that gains little attention in Australia and is positive about the difference this research can make to the lives of many children and families.
VU HOSTS WORLD-CLASS RESEARCHERS AT SPORT CONFERENCE

Victoria University hosted world-renowned researchers from the German Sport University and University of Western Ontario (Canada), during a special three-day conference on Sport, Exercise Science and Active Living last week.

The 2nd International Symposium for Collaboration in Research, Teaching and Exchange ran from April 7-9 at the Flinders St VU Conference Centre, and included a tour of VU’s world-class sport and education facilities at Footscray Park. The Symposium was officially opened by the Vice Chancellor, Professor Peter Dawkins.

The event was run by the School of Sport and Exercise Science and the Institute of Sport, Exercise and Active Living (ISEAL) and attracted over 250 delegates, from 30 different partner organisations. The Symposium scientific program comprised parallel streams in Sport and Exercise Science, Olympic and Megasports Events, Active Living and Sport Management, featuring 84 research presentations and three panel discussions over the three days.

Keynote lectures were given by Professors Michelle Mottola and Professor Peter Lemon from the University of Western Ontario, Dr Stefan Schneider from the German Sport University and VU Professors David Bishop and Damian Farrow. Keynote topics covered topics including safe guidelines for exercise during pregnancy, sprint training for health, exercise to enhance brain function, perspectives on the future of sport and science and applying skill acquisition principles in sport performance.

International Olympic Committee and Australian Olympic Committee member Kevan Gosper OA delivered a keynote presentation and joined a panel to discuss the prospects of Melbourne bidding for future Olympic Games.

The conference built on the unique collaborative history between Victoria University, German Sport University and the University of Western Ontario, that comprises 22 years of student exchange, and the inaugural research and exchange conference held at the German Sport University in 2009. A key focus of this 2nd Symposium was to increase research understanding and collaboration between the three partner universities and also with our collaborating institutions. The next event will be hosted by the University of Western Ontario in London, Canada in 2013.

The Symposium also featured invited presentations from VU’s prominent partners, including the Australian Sports Commission, Australian Institute of Sport, Western Bulldogs Football Club, Victorian Institute of Sport, Maribyrnong College Sports Academy, Australian Centre for Olympic Studies, Australian Olympic Committee, Victorian Olympic Council, Australian Paralympics Committee, Sports School Victoria, as well as collaborating colleagues from several other Australian universities. The international focus of the symposium was also enhanced by presentations from international collaborators from the University of Jyvaskyla (Finland), Indiana University (USA) and Leeds Metropolitan University (UK).

An active program for the international delegates besides the conference included tours of the new Sport and Learning building at the Footscray Park campus, the VU and Western Bulldogs facilities at the Whitten Oval, the MCG, as well as the National Sports Museum and the Maribyrnong College Sports Academy. VU and the Western Bulldogs also hosted our international guests at an AFL game between the Western Bulldogs and the Gold Coast Suns.

Conference Organisers Dr Richard Baka (School of Sport and Exercise Science, ISEAL) and Professor Mike McKenna (ISEAL) were delighted with the Symposium and thanked the Organising Committee, ISEAL administrative staff and all participants. They also thanked ISEAL, the School of Sport and Exercise Science, the Faculty of Arts, Education and Human Development, Victoria University International and the Vice-Chancellor of Victoria University for financial and administrative support.

The Symposium demonstrated the depth and diversity of research conducted in ISEAL, as well as the strength of collaboration with our international and domestic partners in areas of research, teaching and staff/student exchange.

KEYNOTE PRESENTATION: DR KEVAN GOSPER

The Office for Research is pleased to advise researchers that Mrs Christine Near has joined the Ethics and Biosafety Administration Group. Christine brings to VU several years of experience in administration and animal ethics having worked at the Ludwig Institute for Cancer Research at the Royal Melbourne Hospital.

Christine will be providing administrative support to the Animal Experimentation Ethics Committee, Faculty of Arts Education & Human Development HREC and the Faculty of Business and Law HREC.

Christine may be contacted on 9919 4461 or email Christine.Near@vu.edu.au

HUMAN RESEARCH ETHICS: EXPRESSIONS OF INTEREST

The Victoria University Human Research Ethics Committee (VUHREC) seeks a suitably qualified and experienced person to join the VUHREC as an Expert in Human Research (Aboriginal and Torres Strait Islander Research).

Researchers are encouraged to contact their networks and encourage appropriately qualified people to consider this opportunity.

Details including a Duty Statement may be downloaded from the VUHREC website at:

Or contact Anthony Benka for further information on 9919 4148 or e-mail anthony.benka@vu.edu.au

WQRA SUMMER STUDENT PRESENTATION

Rhett Richardson, the 2010 WQRA summer scholarship recipient at Victoria University was the second prize...
winner for the Summer Student presentations at the WORA February Members meeting during 24-25 February 2011. His project was entitled ‘Practical viability and health issues of concentrating brine to solids sourced from inland groundwater desalination’.

SPORT AND CULTURE GROUP LAUNCHES ITS 2011 ACTIVITIES

The Sport and Culture Group (SCG) in the School of Sport and Exercise Science launched its 2011 program of activities on Friday 15 April. The SCG is a collaborative group of scholars at Victoria University who aim to advance critical understanding of sport through individual and collaborative research and writing projects that explore the role of sport in local and global communities. Dr John Tower, current Chair of the SCG, said, “The Launch of the 2011 SCG Activities helps to inform others across the University about the activities of the SCG, to highlight our past achievements and share our future plans”.

Key initiatives for 2011 include the continued production of the Bulletin of Sport and Culture, the continuation of the SCG Forums and the Post Graduate Symposium. The Bulletin has been regularly produced since 1994. The current edition features articles about technology and its connection to sport, development of player associations and sport volunteers.

The SCG Forums, organised by Associate Professor Bob Stewart, provide a chance to explore a range of different issues and current research that relates to all areas of sport. The recent Forum explored issues related to sport volunteerism and the challenges that community sport volunteers need to address.

Dr Caroline Symons reported that the SCG Post Graduate Symposium is scheduled for September this year. It will provide a chance for research students in the SCG to share their latest insights regarding their research and to gain helpful feedback from colleagues. A unique feature of the Post Graduate Symposium is that it includes a group of undergraduate students who do the planning, organising and delivery of the symposium as part of a ‘Learning in the workplace and community experience’ in their Event Management in Sport and Recreation unit.

Two new initiatives for 2011 were explained by Dr Rob Hess. This year the SCG are hosting a series of Honours Student Forums designed to support students doing an Honours project within the SCG area. Rob also announced the planned publication of the Sport and Culture Anthology. The Anthology will provide an opportunity for current research andHonours students to prepare and present a refereed paper as an outcome of their research. There are 15 papers being prepared for the Anthology that will be published later this year.

More information about the SCG is available from the SCG website – www.staff.vu.edu.au/RobHess and follow the link to the Sport and Culture Group page, or contact John Tower, current Chair of the SCG.

EDITOR-IN-CHIEF APPOINTMENT (PROFESSOR YANCHUN ZHANG)

Professor Yanchun Zhang, Director of the Centre for Applied Informatics, has been recently appointed the founding Editor-In-Chief of the International Journal of Health Information Science and Systems (HISS) from Springer- BioMed Central Publishing, to lead an international initiative in developing Health Information Science.

HISS is the first comprehensive, multidisciplinary, open access journal that spans several areas of research to merge computer science/information systems with health care sciences and services, and medical, health and bioinformatics. The editorial team has over 20 renowned scientists and professors as associate editors from world leading universities and research institutes, such as Stanford University’s Medical School, John Hopkins University and NASA’s Glenn Research Centre.

The role of this journal involves the innovation and development of Health Information Science and Systems to assist doctors, nurses, specialists, pharmacists and various healthcare professionals, and users in their healthcare practice and research.

Victoria University is an institution member of BioMed Central Publishing.

http://www.biomedcentral.com/inst/

NEWS FROM THE INSTITUTE FOR LOGISTICS AND SUPPLY CHAIN MANAGEMENT (ILSCM)

1. ILSCM Director, Dr. Hermione Parsons, presented a comprehensive paper on “People and Sustainability on the Freight, Transport and Logistics Industry” at the Australian Logistics Council Forum which is held every year and brings together over 200 Transport and Logistics Industry leaders. This particular topic is high on the list of priorities in the industry due to skill shortages and concern for the environment. ILSCM is very active in this area and is a leader in the industry especially where it concerns the Western suburbs.

2. Victorian Minister for Ports, Denis Napthine MP recently launched the Port of Melbourne Container Logistics Chain Study Report. This study was conducted for the Port of Melbourne and several Victorian Government Agencies by VU’s Institute for Logistics and Supply Chain Management in conjunction with their partner Integrated Management Information System (a private consultancy firm which specialises in statistical analysis)It involved cooperation and collaboration with more than a hundred businesses and government agencies and tracked more than 75,000 container movements over a 14 day period. This data was then used to accurately map the domestic and international container freight task in and out of the Port of Melbourne precinct and the Dynon Rail yards and is the most comprehensive study ever conducted. The outcome of this research will support future private and public sector infrastructure planning in Victoria. The Minister said.
“This information is vital as the government looks at transport and logistics policies”.

3. As Co-General Chair, Prof Peng Shi attended the 5th International Conference on Innovative Computing Information and Control (ICICIC), 20-23 Dec 2010, Xian, China, along with about 300 attendees. The aims of the conference are to enhance international academic exchanges on related topics and to provide a chance for communications among researchers. The 6th ICICIC will be held on 22-24, Dec, 2011, Kitakyushu, Japan.

Prof Peng Shi was also one of the Keynote Speakers in the International Conference on Academic Cooperation, 17-18 Feb 2011, Monterrey, Mexico, organised by the Autonomous University of Nuevo Leon. In his address, Prof Shi shared his successful collaboration experience with international researchers on joint grant applications, joint PhD students supervision, and joint publications. About 150 people world-wide attended the conference, including Spain, Brazil, Argentina, Australia, UK, USA and Mexico.

4. ILSCM Director, Dr. Hermione Parsons, chaired and facilitated an APEC workshop in Melbourne, 5-6 April 2011. The Melbourne workshop is the first of three workshops designed to research and document a “Compendium of Best Practices and Benefits of National Logistics Associations in Selected APEC Economies”. Subsequent workshops will be held in Bangkok, November 2011 and in Hanoi, May 2012. The project is initiated by the Department of Infrastructure and Transport, and funded by AusAID, and delegates represent six APEC economies: Papua New Guinea, Singapore, Thailand, Australia, Vietnam and Indonesia.

This APEC project aims to raise awareness and transparency concerning logistics interfaces at regional policy and regulatory levels, and inconsistency in supply chain standards across jurisdictions. These areas have been identified as common themes in driving supply chain effectiveness and value delivery, at both micro (business-to-business) and macro regional-economic levels.

JOHN HOPKINS TALKS SMARTPHONES

Speaking at the first Centre for Sustainable Organisations and Work seminar run by RMIT University, Dr John Hopkins explored the impact that Smart phones have on users. In doing so, he examined how the mobility offered by the devices can completely alter the way users communicate, do business, plan and, most importantly, think.

“The Smartphone has rapidly evolved from an upscale version of a mobile phone into something closer to a miniature computer,” Dr Hopkins said. “With a growing market of downloadable software applications, it is a technology platform in its own right.” Read more at RMIT News online.

GETTING HIGH FOR A CAUSE: MEN NEEDED FOR UNIQUE ALTITUDE STUDY

Ever wanted to climb a mountain without breaking a sweat?

Victoria University is calling for 10 male participants to spend almost three weeks living at a simulated altitude of 3200 metres.

The unique study will take place in VU’s world-class high altitude hotel, located in the new Institute of Sport, Exercise and Active Living (ISEAL) building at the Footscray Park campus.

VU Professor David Bishop is calling for volunteers aged 18 to 35 who are available to spend 19 days, 24 hours a day, in the altitude hotel. Each participant will be paid $300 if they complete the study.

PACE YOURSELF TO RACE: VOLUNTEER RUNNERS NEEDED FOR STUDY

Do you want to know your aerobic fitness and a useful training strategy to improve your 10km race performance?

If you are healthy, aged between 18 and 35, and your best time over this distance has been under 35 minutes, you are invited to participate in a study investigating effects of pacing strategy on 10km running race performance.

In the lead up to the 2012 Olympics, Australian and Brazilian researchers are working together to investigate strategies to maximise 10km running performance.

Victoria University Professor David Bishop says that during middle-distance running events, such as the 10km running race, competitors must continuously

Chronic hypoxia is a condition that results from a climate of reduced oxygen availability, such as mountains at high altitude.

“A greater understanding of the adaptations to hypoxia is essential to better understand the basis of pathological conditions such as pulmonary diseases, which are characterised by a reduced availability of oxygen,” he says.

A series of tests will be performed during the study including blood samples, muscle biopsies and constant-load exercise regimes.

Food and accommodation will be provided to the participants as well as a diverse range of entertainment options including TV with Foxtel, DVDs, internet access, printer, books, newspapers, magazines, and board games. Each participant will be provided with a personal DVD player plus access to more than 100 DVDs.

For further information please contact Professor David Bishop on 9919 9471 or email david.bishop@vu.edu.au
regulate their velocity in order to finish in the fastest possible time.

“Changes of speed have been termed ‘pacing strategy’ but unfortunately the optimal pacing strategy to maximise middle-distance running performance has not been established,” Professor Bishop says.

“The objective of this study is to examine the influence of manipulating starting strategies during the first 1200 metres of a 10km running race to establish which of these pacing strategies maximises performance.

“Some runners like to hold back in the pack and make a charge at the end, while others like to lead from the front, much like stayers in a horse race.”

For more information contact Professor David Bishop on 9919 9471 or email david.bishop@vu.edu.au

THANK YOU to all who contributed to the content of the Research Matters bulletin. 😊