HMS Newsletter

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Plan to engage more women in sport

Increasing the number of females in sport and physical activity is the focus of a new Queensland Government plan to encourage life-long participation and engagement opportunities.

Head of School, Professor Dume Macdonald, is chairing the Ministerial Advisory Committee on Women and Girls in Sport that will be looking at ways to promote sport to women and girls.

Figures from the Australian Bureau of Statistics show males outnumber females when it comes to participation in organised sport across every age group.

“We will be looking at strategies to break down some of the associated barriers like cost, competence and childcare that may hinder women’s participation in sport,” Professor Macdonald said.

“Schools are very important for developing interest and skills in sport from a young age and therefore the schooling sector will be one of the partners we will be engaging with over the next six months, along with state sporting organisations.”

The committee will take a co-ordinated approach to understanding the needs, priorities and interests of women in sport, and will provide a final report in September this year.

The committee, supported by a secretariat from within the Department of National Parks, Recreation, Sport and Racing (NPSR), also comprises:

• five-times beach volleyball Olympian Natalie Cook
• Softball Queensland General Manager Sue Nabet
• Queensland Academy of Sport's Centre of Excellence Director Dr Sue Hooper
• Australian Council for Health, Physical Education and Recreation (ACHPER) former president David Keating.

The group brings a wealth of experience to the table, and will draw on its collective expertise as well as consulting with the wider sporting community and seeking input to assist the process.

Success with Asbestos Innovation Fund grant

HMS Associate Professor Judith Basset has been awarded funding through the Asbestos Innovation Fund to determine the nutritional status, body composition and digestive intake and quality of life of patients with mesothelioma.

Minister for Employment and Workplace Relations, Bill Shorten, announced the six recipients who were awarded funding on 2 December 2012.

The Fund, launched by the Federal Government in December 2010, is designed to encourage the development of practical pathways to the medium and longer term research which raise awareness of asbestos, improve its management and removal and provide better treatment and support for asbestos disease sufferers and their families.

AP/Prof. Basser’s research will advance understanding and knowledge about the nutritional care for patients who have been diagnosed with mesothelioma.

Sport provides swell times for Indigenous youth

A new report has shed light on how sport programs for Indigenous youth can lead to more fulfilling lifestyles for participants.

The report, a joint venture between the Lausen Sport for Good Foundation, The University of Queensland’s School of Human Movement, Studies, and the Australian Sports Commission (ASC), is titled The Impact of Indigenous Community Sports Programs: The Case of Surfing.

The HMS team awarded the funding includes Professor Graeme Mandich, Professor Richard Tinling, Dr Anthony Rossi, and Dr Louise McCuaig with Professor John Mangan from the UQ School of Economics and the proposal, Educating for healthy citizens: the health work of teachers and schools, was awarded $295,709 in grant funding.

“The research will be looking at schools as the interface of the health and education systems for young Australians,” Professor Mandich said.

“Teachers promote students health every day in many ways such as performing periodic health checks, teaching health education lessons or leading pastoral care. This project will look at what, and how much, health work teachers undertake and how prepared they are to do this work,” he said.

The mixed-method project will examine the nature and extent of the health-related work undertaken by teachers and schools and consider the professional and personal benefit of teachers undertaking this work.

Consequently, the results will inform education, health and Australian policies, and provide direction for teachers’ preparation as health workers.

Korean Coach of the Year takes part in HMS intensive lectures

Ham Sang Hoon, football coach and winner of the Korean Coach of the Year award in Korea, visited HMS with students from Students from Kyung Hee University (KNU) to participate in a two-week intensive lecture series between 17-22 January.

This is the second year HMS has hosted the event with the aim of advancing sports coaching practice and increasing awareness of the benefits of Australian culture, sport and other. The series helped to foster international relations and will contribute to KNU’s Masters of Sports Coaching program.

The lectures focused on Australian culture and the Australian sporting system and was delivered by world renowned Australian lecturers including Associate Professors Cliff Martin, Stephanie Hanrahan and David Jenkins.

Throughout the week, Ham Sang Hoon took high school and elite sporting facilities in Brisbane and took part in cultural activities.

KNSU is the only national sports university in Korea and has produced many outstanding sports leaders, as well as elite athletes and coaches of world-class calibre.

Athletes often plunge into cold water to assist recovery after exercise, but there is little research available to explain how the technique works.

PHD student Lillon Roberts is leading a series of studies into the short and long-term physiological responses on the impact of cold water immersion therapy after resistance exercise.

“We have shown that just 10 minutes of immersion at 10 degrees Celsius significantly affects blood gas characteristics and reduces inflammation markers after high-intensity resistance training,” Mr Roberts said.

“These findings indicate that cold water significantly affects the physiological response within the body, which can lead to effects on exercise performance.”

“Cold water immersion is also of benefit in decreasing fatigue and maintaining performance during subsequent resistance exercise.”

The research is also investigating acute and chronic effects of cold water immersion on performance, as well as on cellular and molecular responses within skeletal muscle.

“There are limited evidence-based guidelines for the use of cold water immersion,” Mr Roberts said. “I hope my research will contribute to the development of enhanced athlete recovery and training strategies.”

“Enhancing the recovery process will ultimately allow us to maximise training-induced results, and may also assist with athlete resilience to injury.”

“He is very per cent improvement in an athlete’s performance can make all the difference in competition, so understanding the physiological responses to cold water immersion therapy and the best way to incorporate it into performance and training may be a fantastic breakthrough for many athletes.”

The Queensland Academy of Sport’s Centre of Excellence in Applied Sport Science Research, Exercise and Sport Science Australia and Sports Medicine Australia are funding the studies.

Dr Peter Hay wins Teresa Carlson Award

Dr Peter Hay was honoured with the Teresa Carlson Award at the Australian Council of Health and Physical Education Research (ACHPER) Queensland branch awards in November 2012.

Peter’s significant contribution to the work of ACHPER Queensland spans nearly a decade on the management committee. In this time Peter’s contribution to the strategic direction, intellectual and practical flog of professional development and high level advocacy within the context of the emerging Australian curriculum has been sustained and sustained.

Peter has also provided a committed and thoughtful contribution to the strategic direction of ACHPER Queensland which has resulted in organisations increasing alignment with state and national policy directions in the area of education with special reference to sport and physical education.

Peter has passionately pursued opportunities for the quality delivery of HPE in school communities to be understood by government policy that will ensure the sustainability of these programs within Australian and Queensland schools.

The contribution of Peter’s work in the field of health and physical education is substantial, and he is a well-deserving winner of this prestigious award.

A/Prof Tim Carroll awarded ARC Future Fellowship

The School of Human Movement Studies Associate Professor Tim Carroll has been awarded a Future Fellowship in the latest round of the Australian Research Council’s scheme.

The Future Fellowships scheme is a Commonwealth initiative designed to attract the nation’s best and brightest mid-career researchers.

A/Prof. Carroll’s research project, titled Revealing how the human brain coordinates body movements for applications in health and technology, aims to extend basic understanding about how the brain controls the movements of our bodies, and how it changes to allow us to adapt and refine our movements.

The work will generate information that is critical for applications in the fields of health and technology.

“A better understanding of how the human brain represents the world and regulates our interactions with it is central to improving rehabilitation programs to restore function after injury, and to the design of interfaces between humans and machines,” A/Prof. Carroll said.

“By revealing the principles of how the brain adapts our movements in response to new environmental conditions, the proposed work will directly inform strategies for rehabilitation and skill acquisition in industry and health.”

Being able to pursue research ideas full-time is an exciting aspect of the Future Fellowship for A/Prof. Carroll. The award also includes funding to support research visits at The University of Southern California, The University of Cambridge and Trinity College Dublin, allowing A/Prof. Carroll to capitalise on international collaborations, which will further assist in the development of the research project.


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**HMS Advancement Board**

The School of Human Movement Studies

Advancement Board was established in April 2010 as a way to keep touch with alumni and supporters, and to grow our reputation within Australia and around the world. To help achieve this aim, each newsletter will now include news from the Advancement Board to let you know what we are doing and how easy it can be to contribute and be involved with the School.

In 2012 we celebrated The University of Queensland and School of Human Movement Studies Alumni Award process. This reinforced to many the high-quality education we received through UQ, the values of the people who were our class mates and just how important university life was in ‘growing up’. This experience should not be taken for granted.

With this in mind, you might like to consider if any of your university peers may be eligible for one of the School’s alumni awards. The details on how to nominate a candidate for these awards will be available on our website in the near future (www.uq.edu.au).

This may also give you cause to reflect on the education you received through the School and how it has shaped your life. The Advancement Board plays a pivotal role in engaging with graduates and encouraging you to continue your involvement with the School. This engagement can take many forms, such as by keeping us informed of your professional progress or particular years or subdisciplines. Should you have any ideas or suggestions of how you’d like to get in contact, enquiries can be sent to hmsadvancement@uq.edu.au.

**The gift of giving**

The School of Human Movement Studies would like to thank alumni who have made donations to the School, your generous support is greatly appreciated. If you are an alumnus and would like to make a donation, you can visit our website: www.uq.edu.au/giving/donations.

Interval training being trialled to reduce kidney damage

Researchers are investigating the health effects of intense interval training in people with chronic kidney disease, with the aim to reduce the high mortality rate associated with the disease.

The research, conducted at the Centre for Research on Exercise, Physical Activity and Health (CRExPAH) based at the School of Human Movement Studies, will compare high-intensity interval training and moderate-intensity continuous training with participants who have stages 3-4 chronic kidney disease.

Interval training has been shown to have health-enhancing benefits in metabolic syndrome patients and cardiovascular disease populations, but is yet to be studied in kidney disease.

Lead study investigator and PhD student Kassia Weston said the results would help shape the most effective exercise requirements for people with kidney disease.

“We know fitness is strongly related to health outcomes in kidney disease, so we can find the best way to improve fitness levels we can hopefully reduce the high mortality rate associated with this disease,” Ms Weston said.

High-intensity interval training has gained rapid appreciation among clinicians due to its superiority in increasing fitness in a shorter amount of time than moderate-intensity continuous training.

**HMS Continuing Professional Development**

The School of Human Movement Studies, in joint partnership with the Australian Sports Commission, has been conducting postgraduate courses in sports coaching for over a decade. Currently the postgraduate program enrols over 300 sports coaches from 49 different sports from around Australia and internationally.

With a broad research base in coaching and education, HMS is well positioned to open the program to the Continuing Professional Development (CPD) market. With experts in the disciplines of sport psychology, nutrition, biomechanics, pedagogy, exercise physiology, health and physical education and sports science, the School draws on a wealth of expertise to design, create and deliver an interactive, authentic learning experience by way of CPD online short courses.

CPD online short courses are typically eight to ten hours in length and designed specifically to address a particular knowledge or skill in education or training for professionals working in the broad field of human movement.

To date the School has partnered with the Brisbane Broncos to develop an online elite player development site which provides educational training and coaching resources to players. The Australian Rugby Union has utilised the expertise of the School in creating two online courses specific to the accreditation of Level 3 coaches. The Australian Football League (AFL) has also engaged with the School to design learning resources for their club coaches to undertake a Better Coaching Practice course.

The strengths of the design of these online CPD courses lie in the applied nature of the learning to the coaching context. Beyond the scope of sports coaching, the School has developed learning resources in conjunction with the Brisbane Sports Medicine for general practitioners interested in sports medicine, specifically in the area of knee joint examinations.

Future planned short courses include:

- Implementation of the National curriculum for Health and Physical Education
- Nutrition for Athletes
- Accredited Exercise Physiologist training course
- Psychological skills training for coaches

Ms Weston will be expanding on her research when she travels to Norway to collaborate with the world’s leading researchers in high-intensity interval training.

“The research in Norway will be focused on using muscle biopsy to investigate the effects of this type of training on muscle function, a significant determinant in muscle wasting which is associated with the chronic kidney disease population.”

“The analysis will provide significant insight into why muscle wasting is associated with kidney disease.”

Ms Weston was the recipient of the 2013 HMS Alf Howard AO International Scholarship award, which enables recipients to improve the quality of research in their area of expertise.

Other researchers involved in the study include Professor Jeff Coombes, Dr Jonathon Paake, Professor Nikky Isabell, Dr Erin Howden and Professor Rob Fassett.

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**ISSUE 1, 2013**

**UQ leads the way in national research excellence**

The School of Human Movement Studies has been recognised as a leader in the field of research with the results of the 2012 Excellence in Research for Australia assessment.

In the Field of Research for Human Movement and Sport Sciences, The University of Queensland (UQ) was awarded a ranking of five, which is the highest rank possible, and puts our research well above world standard.

This rank also places UQ as the highest ranked university for Human Movement and Sport Sciences in Queensland.

**Sitting Pad to help decrease the risk of ‘Chair Disease’**

To prevent the risk of ‘chair disease’, researchers have developed a ‘sitting pad’ device that uses an alarm to alert workers to stand up more regularly.

The School of Human Movement Studies research team, including PhD student Gemma Ryde, Mr Nicholas Gillon, Mr Alessandro Suppini and Dr Beryl Shaw, have developed the device to tackle health problems related to sitting down too often.

Ms Ryde said this can cause heart disease, diabetes, obesity and back, neck, wrist and shoulder injuries.

“Sitting for large portions of the day is associated with poor health outcomes and a reduced life expectancy, even for those people who might be considered physically active,” Ms Ryde said.

“The sitting pad results will contribute towards the growing body of evidence in the area of occupational sitting.”

“Our studies have shown that the sitting pad is a highly accurate measurement tool that can objectively measure desk based sitting time and the number of times employees get up from their desk.”

She says the sitting pad measures the time a worker spends sitting at their desk using a medical grade pressure sensor and custom made microcontroller to record a timestamp each time an employee sits down or stands up.

A feedback mechanism built into the sitting pad attaches to a sensor, which can then be set to sound an alarm if a person has been sitting for a certain predetermined amount of time.

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