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International Cricket Bowlers Visit Chichester for Biomechanics Assessments

Sports and Exercise Scientists at the University of Chichester have been working with the International Cricket Council (ICC) to assess the legality of the bowling action in some of the world's leading cricketers. If match officials deem that a player has a suspect ICC for assessment. The is currently used as one centres in the world. and Dr Mike Lauder for ICC bowling panel Quintic consultancies, the University who conduct the test high-speed video per second. Dr Smith bowler's action as an This allows us bowler has during the tolerance limit the ICC." So far International



3 Dimensional Biomechanics Motion Capture System used for Fast Bowling Movements

action, they are referred to the laboratory here in Chichester of only three recognised test Biomechanists Dr Neal Smith provide this technical expertise member Paul Hurriion of who is a past graduate from specialised in cricket. They procedures involving several cameras capturing 200 images said, "We reconstruct the animation in three dimensions. to measure if the extended his arm delivery above the of 15 degrees set by the University has had cricketers from

Pakistan, South Africa, Bermuda, and the West Indies being assessed through their laboratory. Dr Smith concluded, "This is an example of sports science making a difference in International sport, and shows that Chichester is at the forefront of this discipline"

STOP PRESS!

Thelwell, R.C., Weston, N.J.V., & Greenlees, I.A. (in press). Batting on a sticky wicket: Identifying sources of stress and associated coping responses for professional cricket batsmen. Psychology of Sport and Exercise. This article examines the experiences of professional (county and international) cricketers and how they deal with the demands of their cricketing careers.

Sailing Success in China!

Dr Peter Cunningham, Royal Yachting Association's Lead Exercise Physiologist, traveled to Qingdao, China for 5 weeks during the summer to support the British Olympic sailing Team at the first official Olympic Test Event in the run up to the 2008

Beijing Olympics. Britain won a total of 3 gold medals, 2 silver medals and 2 bronze medals across the 11 sailing disciplines and strongly suggested that their Olympic preparations for 2008 are going to plan following on from success in Sydney 2000 and Athens 2004.

Peter has conducted research for more than a decade at the University of Chichester into the characterization and optimization of human performance in competitive sailing.



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Evaluating the Role of Sport and Physical Activity in Neighbourhood Renewal

An interesting collaborative research project is underway at present with the London Borough of Sutton. The aim of the study is to monitor and evaluate the direct impact of sport



Roundshaw

and physical activity delivered through the Phoenix Centre on the lives of Roundshaw residents, with particular reference to healthy lifestyles, physical and psychological well being, community safety and cohesion.

Second year BA students on the Marketing module are conducting questionnaire surveys of residents on the Roundshaw and Users of the Phoenix Centre to measure its impact on their lives. Follow up work next year will assess the effectiveness of inter-agency working in this process: i.e. how sport and physical activity relates to and is delivered in

partnership with other services such as education, health, housing and community services.
Contact: Dr Peter Green



Phoenix Centre

Sociologists Active in Conference

Dr David Muggleton attended the Researching Youth Sport conference at Loughborough University on 20th September and gave a paper titled "Marx or Weber: Rethorising Countercultural Sports"

Over the last year David has had published three chapters in International Books and two articles in International Journals. He also became a member of the Advisory

Degeneration: Exercise, Gender and Aging (Dis)Gracefully".

Board of the journal of Leisure Studies.

Dr Elizabeth Pike gave the following presentations this year:-

Pike, E. (2006). Session organizer and president: "Sport and Aging Communities". North American Society for the Sociology of Sport.
Pike, E. and Clarke, G. (2006). Paper presentation: "It's Just Body Degeneration: Exercise, Gender and Aging (Dis)Gracefully". North American Society for the Sociology of Sport.

Recent Staff Publications

Greenlees, I.A., Dicks, M., Thelwell, R.T., & Holder, T. (in press). Order effects in sport: Examining the impact of order of information presentation on attributions of ability. *Psychology of Sport & Exercise*. A classic research study conducted by Solomon Asch (1946) indicated that the order in which we receive information about another person will influence the impressions we form of them. This study sought to examine whether similar processes occur in sport by showing coaches clips of performers but in varying orders (good performances followed by poor or poor performances followed by good). Support was found for primacy effects in sport. It is hoped that Greenlees, Dicks, Thelwell and Holder (in press) will stimulate further research in this area and Iain has been successful in attracting a British Academy small research grant to continue this work.

Conoboy P, Dyson R. (2006). Effect of aging on the stride pattern of veteran marathon runners. *Br J Sports Med*.40(7):601-4.

Dyson R, Buchanan M, Hale T. (2006) Incidence of sports injuries in elite competitive and recreational windsurfers. *Br J Sports Med*. 40(4):346-50.

McMorris, T., Swain, J., Smith, M., Harris, R. C., Corbett, J., Delves, S., Sale, C. & Potter, J. (2006). Heat stress, plasma concentrations of epinephrine, norepinephrine, 5-hydroxytryptamine and cortisol, perception of mood state and working memory. *International Journal of Psychophysiology*, 61, 204-215.

McMorris, T., Harris, R. C., Swain, J., Corbett, J., Collard, K., Dyson, R, Dye, L., Hodgson, C., & Draper, N. (2006). Effect of creatine supplementation and sleep deprivation, with mild exercise, on cognitive and psychomotor performance, mood state, and plasma concentrations of catecholamines and cortisol. *Psychopharmacology*, 186, 93-103.

McMorris, T., Swain, J., Lauder, M.A., Smith, N. and Kelly, J. (2006) Warm-up prior to undertaking a psychomotor task: does it aid performance? *Journal of Sports Medicine and Physical Fitness*. 46, 328-334.

Smith, M. and Draper, S. (2006) 'BASES Physiological Testing Guidelines: Section 2 – Sport Specific Procedures', Taylor and Francis, Routledge

Human Factor Performance and High Speed Marine Transits

Applied Science research by the University of Chichester High Speed Boat research group was presented at the specialist ABCD (American, British, Canadian and Dutch) biennial symposium on Human Performance at Sea by Drs Trevor Dobbins, Rosemary Dyson and Steve Myers. Three papers were presented at the conference in Panama City, Florida, USA which focused this year on the Influence of ship motions on biomechanics and fatigue.

- Motion induced fatigue following exposure to whole body vibration in a 28 foot RIB. By S. Myers, T. Dobbins and R. Dyson of University of Chichester.

- Energy expenditure during transits in a 28 foot RIB. By S. Myers, T. Dobbins and R. Dyson of University of Chichester and J Hill of the Royal Marines, Poole.
- The effects of rigid inflatable boat (RIB) transits on performance and fatigue. By S. Holmes, T. Dobbins, S. Leamon, S. Myers, K. Robertson and S.King.

The research reported was sponsored in the main part by a grant award from the Engineering and Physical Sciences Research Council (EPSRC) awarded in collaboration with Professor Shenoi of Ship Sciences Department of Southampton University. Collaboration with the

Royal Marines, Poole has been invaluable. The last presentation reflects ongoing research collaboration of University of Chichester High Speed Boat Group Scientists with QinetiQ Ltd of Farnborough UK



Inaugural Meeting of Weight Classified Athlete Special Interest Group

A meeting of the British Association of Sport & Exercise Science (BASES) Weight Classified Athletes Special Interest Group took place on 26th April 2006 at the University of Chichester. The meeting was convened by Dr Marcus Smith (University of Chichester) and attended by members representing the following academic disciplines: Sports Nutrition, Dietetics, Exercise Physiology, Sports Psychology and organisations: National Society for the Prevention of Cruelty to Children (NSPCC), English Institute of Sport, National Governing Bodies of Sport.

The meeting began by Dr. Marcus Smith outlining his reasons, based on observations from working with elite athletes over the previous 5 Olympic Games, why there exists the need for a Weight Classified Athlete Special Interest Group. Issues relating to: role clarification, guidelines for practitioners, continued professional development for practitioners, weight manipulation techniques and strategies, junior versus senior athletes, rules and regulations of weight classified sports, repetition of bad practice, recognition of targeted research and the challenge to the group as practitioners to deliver in 2012, were highlighted.

STOP PRESS!

Smith, M. (2006) 'Physiological profile of Senior and Junior England international boxers'. *Journal of Sports Science and Medicine*, *Combat Sports Special Issue*, 74-89

International Award for Golf Research.

Dr Paul Worsfold, a recent doctoral graduate from the University of Chichester, who has been conducting fundamental human movement studies in golf performance and the relevance of golf footwear design was presented with the award at a conference in Salzburg.

Paul (26) won the sports biomechanics award after presenting some of his applied research on the relevance of golf footwear design performance characteristics at the 24th

International symposium on Biomechanics in Sport. The research paper, authored with his research supervisors Drs Neal Smith and Rosemary Dyson, was judged on strict criteria of scientific merit and the quality of the presentation in a two stage selection process. Analysis of the forces generated



Paul Worsfold with an Adidas Shoe

at the feet using special natural grass covered force measuring devices,

developed at the University of Chichester by Dr R Dyson, enabled the efficacy of two different golf shoe designs to be compared in an ecologically relevant grass environment.

University of Chichester
Bishop Otter Campus
College Lane
Chichester
PO19 6PE

Tel : 01243 816312
Fax: 01243 816080

Editorial:-

Dr Rosemary Dyson
Fran Dobbins
Carol Clack



School of Sport, Exercise and Health Sciences

Research and Development Seminars

Autumn Semester 2006

Your notes!

- Thursday 4th October 2006 1 p.m. Room C120
The Applications of High Pressure Liquid Chromatography (HPLC) in Biosciences.
Dr Mark Dunnett, Newmarket.
- Wednesday 18th October 2006. 12 noon Room H144
Writing for Scientific Journal Publication.
Professor Terry McMorris, University of Chichester.
- Friday 20th October 2006. 1.30 p m Room E124.
Curmudgeon or Golder Ager? The influence of reported exercise participation on the
stereotyping of the elderly.
Dr Iain Greenlees, University of Chichester.
- Wednesday 1st November 2006 12 noon Room H144
Re-theorizing Countercultural Sports.
Dr David Muggleton, University of Chichester
- Wednesday 8th November 2006. 12 noon. Room H144
Exercise and Immune Incompetence.
Professor Lindy Castell, Nuffield Department of Anaesthetics, University of Oxford.
- Thursday 16th November 2006 12.30 p.m. Room H144
The Application of Engineering to Sports Performance.
Dr Peter Dabnichki, Queen Mary College, University of London.
- Wednesday 22nd November 2006. 12 noon Room H144
Evaluating the Role of Sport and Physical Activity in Neighbourhood Renewal.
A Case study of Phoenix Centre and the Roundshaw estate, Sutton.
Dr Peter Green., University of Chichester.
- Wednesday 6th December 2006. 12 noon Room LO6.
Hypnosis in Sport.
Jamie Barker, Staffordshire University.
- Wednesday 6th December 2006. 2 p.m. Room H144
The Influence of Temperature on Heat Shock Protein HSP70.
Ric Lovell, Department of Sport, Health and Exercise Science, University of Hull.
- Friday 8th December 2006. 1.30 p.m. Room H144
Researching the Exercise-Cognition Interaction: Problems with the Blood(y)-Brain
Barrier.
Professor Terry McMorris, University of Chichester.

News Flash

Professor Roger Harris of University of Chichester, Co President of 10th International Conference on Amino Acids and Proteins. To be held in Greece in 2007. Professor Harris is convening a 2 day Sport & Exercise satellite session.