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High Performance Sport News aims to promote greater awareness of key high performance sport activities and topics across the Australian sport sector.

High Performance Sport News is produced by the Clearinghouse for Sport and disseminated monthly. All contributions are welcome. Contact Dr Nicole Vlahovich if you would like to share your news.

Please note that some of the web links presented in this edition will require you to log into the Clearinghouse for Sport website. If you are not already a member, please join today.

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Major Government Announcement

Organised crime and drugs in sport

The Australian Crime Commission has released the findings of a 12-month investigation into the integrity of Australian sport and the relationship between professional sporting bodies, prohibited substances and organised crime.
Organised Crime and Drugs in Sport - The Australian Crime Commission

Both Federal and State Governments made announcements in relation to the release of this report:

- Organised crime and drugs in sport - Federal Joint Media Release; Minister for Justice Jason Clare MP and Minister for Sport, Senator Kate Lundy.
- NSW Government supports Federal initiatives to protect the integrity of sport. (PDF) - NSW Minister for Sport and Recreation, Graham Annesley.
- ACC report into organised crime and drugs in sport - Michelle O'Byrne, Tasmanian Minister for Sport and Recreation.
- New Victoria Police Sporting Integrity Intelligence Unit - Victorian Premier, Ted Baillieu and Minister for Sport and Recreation, Hugh Delahunty.
- Keeping Territory Sport Clean - NT Minister for Sport and Recreation, Matt Conlan.

Athletes

Athlete Pathways – Researchers at the AIS have recently published an article in the European Journal of Sport Science entitled Patterns of performance development in elite athletes. In conjunction with this publication the Athlete Pathways team is releasing the FTEM framework and aligned resources, which will include the FTEM Resource Repository and NSO Information Packages. NSOs should expect to soon receive a letter describing the framework and the aligned suite of resources, including the NSO Pathway Healthcheck.

Anti-Doping - Anti-Doping agencies have made several announcements relating to athlete education recently:

- Athlete Committee calls for more anti-doping education (WADA)
- Anti-doping education for 500 future Olympians at Australian Youth Olympic Festival (ASADA)

Daily Training Environment

International Society of Sports Nutrition position stand: energy drinks – The International Society of Sports Nutrition has released a position stand which critically evaluates the scientific literature and makes recommendations about the role that energy drinks and/or energy shots may have on exercise performance and energy expenditure/metabolism. The statement also discusses safety considerations.

Leadership

Greg Hartung honoured with an Order of Australia - Vice-President of the International Paralympic Committee, Greg Hartung was a recipient of the Order of Australia medal for distinguished service to sport and people with a disability.

Research and Innovation

Sports Medicine Australia announces Research Grant Winners - SMA made the announcement of successful recipients of the 2012 SMA Research Foundation Grants, which aim to support research in sports medicine and its relationship with disease prevention.

Visiting Scientists to the AIS
During January a number of visiting scientists attended the AIS, involved in research with the Aquatic Testing and Training Research Unit including Prof. Sergei Kolmogorov (Russia), Prof. Huub Toussaint (Netherlands), Dr Barry Wilson (Malaysia), Prof. Peter Sinclair (University of Sydney), Prof. Raul Arellano and his PhD student Rocio Dominguez (Spain). Two of these scientists, Prof. Toussaint and Dr Wilson, took the time to give a Smart Talk on their experiences in International Sport Systems:

**Sport Science and Medicine support in the Netherlands and Malaysia** (may not be available to all *Clearinghouse for Sport* members).

The AIS also hosted Prof Vincent Walsh from the Institute of Cognitive Neuroscience at University College London. An expert in brain stimulation, measuring brain function, sleep, creativity and in particular, visual cognition, Professor Walsh gave a Smart Talk relating to neuroscience and athletes:

**Brain Science and the Limits of Training** (may not be available to all *Clearinghouse for Sport* members).

**PhD scholarship - a collaboration between Netball Australia, Victoria University and the AIS.**

Netball Australia, Victoria University and the AIS have partnered to establish a PhD scholarship to look into load monitoring in Netball. The successful scholar is Alice Sweeting and she will be supervised by Dr Rob Aughey from VU, Dr Stuart Morgan from the AIS and Mary Toomey from Netball Australia. The study will utilise inertial sensors and a radio frequency tracking system that was co-developed by the AIS and CSIRO. "This will be a three year study to really understand the demands on our athletes from our developing Diamonds, to our current top athletes", says Mary Toomey.

Dr Rob Aughey will bring hands on experience with his role monitoring player loads for the Western Bulldogs AFL team. "AFL clubs have been using GPS technology for quite a number of years now, but the challenge for indoor sports is that GPS can’t be used.

This study will tackle that issue using a number of methods including RF tracking", says Aughey. "The AIS has a proud tradition of working with Netball. We know that the rest of the world are seriously challenging the Diamonds at the moment, so it’s important that we continue to push the boundaries of innovation in the sport", says Dr Morgan who works in the AIS Data Analytics unit. Alice Sweeting was also awarded an Australian Postgraduate Award as one of the top undergraduate scholars at Victoria University. "I’m so excited to be awarded this scholarship. The opportunity to carry out research in an applied setting with a top sport like Netball is a dream come true", says Sweeting.

Sports or universities who may wish to pursue opportunities such as this should contact Tim Kelly: tim.kelly@ausport.gov.au

**Research into Practice** - Two articles were recently published highlighting the issue of the practical application of research into coaching or sport practice:

- Bridging the gap between research evidence and real world implementation: Developing the FootyFirst program *Journal of Science and Medicine in Sport*
- *Sport science relevance and application: Perceptions of UK coaches* *Journal of Sports Sciences*

**Sports Concussion** – The *Concussion in Football 2013* conference is being held 20-21 March, Melbourne, Australia. The program features Australian and International experts from a range of sports on topics including best practice management of concussion in elite and community level sport, latest research about the short and possible longer term effects of concussion, and implementation of outcomes from the 2012 Zurich International Conference on Concussion in Sport.

The topics of concussion and head trauma were also raised in recent media relating to an article released in the *American Journal of Geriatric Psychiatry - PET Scanning of Brain Tau in Retired National Football League Players: Preliminary Findings*. Related media articles included:

- New Test Could Be NFL’s Breakthrough in Battle Against Concussions *Wired*
- CTE found in living ex-NFL players *ESPN*
- Family sue NFL over brain injuries *The Australian*
- NFL partners with GE for concussion research *nfl.com*

Channel 7 television also aired a special about the effects of concussion on footballers on the program *Sunday...*
Night on 24 February 2013: The price of playing the game

Sport Research and Technology in the media

- Sensors Log an Athlete's Every Move—And Heartbeat Popular Mechanics published an article describing technology relating to athlete tracking and management.
- Number crunchers say Tomic is certain for top 10 The Australian reported on a data analytics project being conducted by Tennis Australia, which is used to make predictions on world rankings.
- Sports stars have superior visual skills ABC Science reported on a scientific study which concludes that elite athletes have extraordinary visual skills. The full scientific report is available from Nature Scientific Reports.
- Australian Sports Commission considers investing in app development for coaching The Financial Review described an idea to utilise phone technology in sports coaching.
- Data from apps help athletes raise the bar The Boston Globe described a role for personalised computing and phone apps in athlete training and development.
- How did amateurs compare with pros at the Tour Down Under Reporting for The Conversation, CSIRO Scientist Ken Taylor analysed the difference between professional and amateur cyclists on the Tour Down Under.
- Analysis of running gaits reveals variation in foot strike patterns found in predominantly barefoot runners Medical News Today reported on a study out of the USA relating to the barefoot running phenomenon.
- New EPO test could help stamp out microdosing Velonation reports on a newly developed test that can rapidly and more accurately detect small amounts of EPO.
- Cooling Solutions Trending in Synthetic Turf Industry Athletic Business described a project focussed on improving playing surfaces with a spotlight on talking heat absorption issues.

Recent Publications from National Institute Network researchers - The following articles by NIN researchers (and their partners) have been published in academic journals or books:

- "A rationale for assessing the lower-body power profile in team sport athletes." Nibali ML; Chapman DW; Robergs RA; Drinkwater EJ, Journal Of Strength And Conditioning Research 2013 Feb; Vol. 27 (2), p 388-97
- "Consecutive days of cold water immersion: effects on cycling performance and heart rate variability." Stanley J; Peake JM; Buchheit M, European Journal of Applied Physiology 2013 Feb; Vol. 113 (2), pp. 371-84
- "Do the kinematics of a baulked take-off in springboard diving differ from those of a completed dive." Barris S; Farrow D; Davids K, Journal of Sports Sciences, 2012 e-Publication ahead of print
- "Fatigue is specific to working muscles: no cross-over with single-leg cycling in trained cyclists." Elmer S; Amann M; McDaniel, J; Martin D; Martin J, European Journal of Applied Physiology 2013 Feb; Vol. 113 (2), p479
- "Patterns of performance development in elite athletes." Gulbin J; Weissensteiner J; Oldenziel K; Gagné F, European Journal of Sport Science, 2013, e-Publication ahead of print
- "Post-exercise cold water immersion: effect on core temperature and melatonin responses." Robey, E; Dawson B; Halson S; Goodman C; Gregson W; Eastwood P, European Journal of Applied Physiology 2013 Feb; Vol. 113 (2), p305
- "The Effects of Chronic Sodium Bicarbonate Ingestion and Interval Training in Highly Trained Rowers." Driller MW; Gregory JR; Williams AD; Fell JW, International Journal of Sport Nutrition & Exercise Metabolism 2013 Feb; Vol. 23 (1), p40

To access the full articles please visit the Clearinghouse for Sport.

To view and access academic literature on a range of sport-related topics, sign up for the Sport Monthly Update alert service.
Enhancing the Performance Pathway (UK) - A new education programme aimed at enhancing the knowledge and skills of those working with elite developing athletes has been launched by the UK Talent Team (a collaboration between UK Sport and the English Institute of Sport [EIS]).

UK sport in funding u-turn - British Basketball’s hopes of qualifying for the 2016 Olympics have been boosted after UK Sport agreed to fund the national teams. The decision comes two days after officials from the performance body decided to provide no cash support in the lead-up to Rio.

Athletics Canada makes changes to technical leadership structure - Athletics Canada announced important changes today to its technical leadership structure. Effective immediately Olympic program Head Coach Alex Gardiner and Chief High Performance Officer Martin Goulet have been relieved of their duties.

Russian President Vladimir Putin introduces match-fixing bill - A bill has been introduced into Russian parliament against match-fixing in sport, after suspicions about rigging of results in its domestic football leagues.

European Sport Policy - Released late last year, this overview of sport issues on the EU agenda provides information on a range of aspects of sport policy including financing of sport, vocational training and education and health aspects of sport.

Conferences

Our Sporting Future 2013 - The Our Sporting Future Forum will provide participants with the opportunity to learn and contribute to discussion on the future of Australia’s sporting industry, looking into both internal and external impacts on Australia, and the potential effects this may have on the numerous sporting stakeholders. The Forum will be held at the Melbourne Convention & Exhibition Centre, 10–12 April 2013.

Australian Swimming Coaches and Teachers Association (ASCTA) Convention - More than 700 swimming coaches and teachers attend this event annually. Held over eight days, the convention will consist of over 80 presenters and 25 exhibitors. This convention will be held on the Gold Coast, Australia, 7 - 12 May 2013

American College of Sports Medicine 60th Annual Meeting and 4th World Congress on Exercise is Medicine - With 12 topical tracks, including Exercise is Medicine, attendees of more than 70 disciplines come together from around the globe to share new clinical techniques, scientific advancements and cutting-edge research in sports medicine, exercise science, physical activity and public health. This conference will be held in Indianapolis, USA, 28 May - 1 June, 2013.

Ninth International Symposium on Computer Science in Sport - The symposium will be presented as a forum for mutual exchange between researchers, coaches, physical education teachers, graduates, fitness instructors, engineers, mathematicians and other sports-related and technical experts, dealing with interdisciplinary topics on sports and computer science. The symposium will be held in Istanbul, Turkey, 19-22 June 2013.

The Asics Conference of Science and Medicine in Sport - This conference multidisciplinary meeting held every year for professionals with an interest or involvement in sports medicine, sports science, physical activity promotion and sports injury prevention. The conference will be held in Phuket, Thailand, 22-25 October, 2013.

2013 World Conference on Doping in Sport - The World Anti-Doping Code review will be reaching a conclusion at the Conference and WADA’s Foundation Board will approve the next edition of the Code to come into operation in January, 2015. WADA has confirmed that the 2013 World Conference on Doping in Sport in Johannesburg, 13-15 November 2013.

Latest Information and Resources

Sport New Zealand Relay Newsletter - Links to topical information and research in the sport and physical recreation sector.

University of Washington Medicine Surgical Animations Library - Surgical Animations and Examples has been released to provide patients with some basic understanding of how their Orthopaedic Surgical needs may be
treated.

The Conversation published a number of research-related articles relating to tennis and the Australian Open:

- Azarenka, Tsonga and the sexism that chokes women's tennis
- Panic stations: Azarenka's 'extended break' and the science of choking
- Djokovic has longer to recover, so should Murray and FedEx bother?
- Does Channel 7 serve the Australian Open we’re owed?
- Numbers game: the Australian Open and predicting success

ITF Coaching and Sport Science Review The articles in this issue cover a variety of topics including principles of natural justice for coaches, application of TRX training system to tennis, female tennis methodology and evolution, practice variability applied to tennis, among others

Triathlon Anatomy – 2013 - Mark Klion, Troy Jacobson
This new book details sport specific information on strengthening muscles and increasing stamina for running across various terrains, cycling steep inclines and swimming in open water. The book includes Step-by-step instructions for 82 exercises, depicted with more than 177 full-colour anatomical illustrations.

From the National Sport Information Centre

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New Book available at the NSIC

Managing high performance sport - edited by Popi Sotiriadou and Veerle De Bosscher

Current Awareness Services

Sport Monthly Update – This Clearinghouse for Sport current awareness service is provided by the following Australian Sport Sector partners. Sport Monthly Updates highlight the latest content on selected topic(s) of interest from the SPORTDiscus database, a comprehensive research database of sport and sport science literature.

Electronic Tables of Contents - This Clearinghouse for Sport current awareness service allows members to receive an electronic copy of the ‘table of contents’ for many journals of interest. A list of the journals offering this service can be found in the Clearinghouse.

High Performance Sport News and Community Sport News – These news services will alert members to the latest information in their respective area of interest. High Performance Sports News is not available to all client groups.

Daily Sports News – This news service is published monday through friday and provides a summary of the latest sports news stories, government announcements and international insights.

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