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COMPPS RESPONSE TO THE INQUIRY INTO THE PRACTICE OF SPORTS SCIENCE IN AUSTRALIA

SUBMITTED TO COMMITTEE SECRETARY, SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT REFERENCES COMMITTEE

31 MAY 2013

Background

COMPPS

COMPPS consists of the following organisations:

- Australian Football League (**AFL**);
- Australian Rugby Union (**ARU**);
- Cricket Australia (**CA**);
- Football Federation Australia (**FFA**);
- National Rugby League (**NRL**);
- Netball Australia (**NA**); and
- Tennis Australia (**TA**).

Each of these organisations is the governing body and custodian of a major professional sport in Australia. They are not-for-profit bodies and are responsible for the long-term development and sustainability of their sport in Australia.

In general, COMPPS members provide a wide range of public benefits through a self-funding business model. A large portion of their revenue is devoted to enhancing, promoting and developing sport for all Australians both at national and 'grassroots' level.

One of COMPPS' roles is to provide a collective response on behalf of its member sports where their interests are aligned.

Please note that in this instance Tennis Australia has advised that it does not wish to be a signatory to this submission or represented by COMPPS on this issue.

COMPPS makes the following comments in relation to the Inquiry into the practice of sports science in Australia. We do so having seen the Australian Institute of Sport Sports Science and Sports Medicine Best Practice Principles (The AIS Best Practice Principles) issued on 29 May, 2013[1].

At the outset we state that we firmly support the significant contribution to professional sport in Australia that sport scientists can play. Recent events have brought into question the governance and management processes and systems that surround the application of sports science. The COMPPS' sports welcome the opportunity to contribute to this process with a view to adding discipline and rigour to the role of sports science in professional sport.

There are five issues in respect of which comment is sought. We deal with each in turn:

a) The current scope of practice, accreditation and regulation arrangements for the profession;

i. The current scope of practice.

Sport Science is the study and application of scientific principles and techniques with the aim of understanding, and providing information that can be used to improve sports performance.[2]

> *"The key role of sports science is to take the talent of an athlete and bring it to fruition".* [3]

Sports science is widely-recognised as making an important contribution to the success of athletes by influencing athletic practice and performance.[4] For example, 2012 Tour de France winner, Bradley Wiggins, has attributed much of his improved performance to an Australian sports scientist who has "revolutionised his training"[5] There are many other examples of coaches and athletes who value the contribution of sports science to sporting success:

> *"Sports science in the last decade has seen a phenomenal improvement and that has become a major development in the game." Sir Alex Ferguson* [6]

[1] AIS Sports Science and Sports Medicine Principles – www.ausport.gov.au/ais/australias_winning_edge/sports_science_sports_medicine_best_practice_principles
[2] Haff G. Sports Science. A Roundtable Discussion *National Strength and Conditioning Journal. 32*: (2) 33-45, 2010
[3] Emeritus Professor Clyde Williams, sports-science specialist from the world-renowned Loughborough University, UK; http://www.vu.edu.au/news-events/news/sports-science-and-olympic-success
[4] Bishop, D., et al. Does sports science research influence practice?" *International Journal of Sport and Physical Performance*. 1:161-168, 2006.
[5] http://www.telegraph.co.uk/sport/othersports/cycling/bradley-wiggins/9391711/Tour-de-France-2012-Bradley-Wiggins-credits-sports-scientist-Tim-Kerrison-with-revolutionising-training.html
[6] http://www.bbc.co.uk/sport/0/football/15283737

Sports scientists work as an integral part of a multi-faceted sports medicine and science team. Sports scientists work in collaboration with other relevant health, medical, and conditioning professionals (e.g., sports physicians, sports doctors, physiotherapists, sports dieticians, sports psychologists, and strength and conditioning coaches) as a part of the "high-performance team" within a club or organisation.[7] A clear understanding of the roles and responsibilities, and the scope of practice, of each member of the sports medicine and science team is a critical element of working in a sporting environment.

The scope of practice of sports science is broad, but can be broadly classified as using scientific principles and techniques to increase the understanding of sports performance, and to provide information and services that can be used to improve individual and/or team sports performance. Specifically, the following tasks and roles (often performed collaboratively) can be considered as largely covering the scope of practice of sports science:

- Develop and design programs to enhance an athlete's learning and decision making abilities and improve skilled performance;
- Assess an athlete's motor performance and provide advice on the design of training programs that will enhance an athlete's ability to improve or to learn new skills to improve performance;
- Assess an athlete's visual processing, cue recognition and decision making skills;
- Investigations into the anthropometric, physiological, and metabolic demands of specific sports;
- Assessments of an athlete's physiological capacities, training and sports performance;
- Evaluation of the efficacy of training programs in consultation with the athlete's coach and the strength and conditioning staff;
- Monitoring of the training load and assessment of an athlete's response and adaptation;
- Advice on environmental stressors (heat, altitude) and the design of programs to assist adaptation and performance;
- Monitoring signs of training maladaptation, musculoskeletal injury and illness in consultation with the sports medicine physician and other allied health staff
- Providing advice on recovery and regeneration techniques;

[7] http://theconversation.com/tarred-with-the-same-brush-what-do-sports-scientists-do-12121

- Research and evaluate new training programs, ergogenic aids, including nutritional products and environmental adaptations, that may improve athlete performance;
- Assessment of mechanics and efficiency of movement using video or computer based technologies;
- Develop technical modifications to improve the efficiency of athlete's performance or to reduce the risk of injury;
- Research, design and development of sports or personal equipment to improve sports performance and/or reduce the risk of injury;
- Design, implement, supervise, evaluate and monitor individualised strength and conditioning programs to improve performance and to assist in the rehabilitation of injury.

It is generally accepted that the scope of practice of sports science does not include:

- providing or ordering medical tests or procedures;
- any invasive services, including injectables or intravenous procedures (except for capillarised blood testing);
- prescription or administration of pharmaceutical products or medicines
- designing or implementing nutritional supplementation programs without consultation and sign off from a sports dietitian and a medical doctor;
- performing joint manipulation or ultrasound therapies; or
- providing final "clearances to play" following an injury or illness.

It is also important to note that the term "sports scientist" is generic and that a sports science team may consist of a group of diverse sports-science specialists that have developed specific knowledge and skill in one area of sports science. [8] Discipline-specific sports scientists include sports physiologists, recovery specialists, sports psychologists, biomechanists, skill acquisition specialists, and performance analysts. In most high-performance settings, the sports-science team works collaboratively to provide the coaching panel with evidence-based approaches to athlete development and performance.

ii. Accreditation and regulation arrangements for the profession

The requirement for registration or accreditation by the relevant, peak professional organisation or body is an essential requirement of any profession to ensure quality

[8] http://theconversation.com/tarred-with-the-same-brush-what-do-sports-scientists-do-12121

control and the necessary professional standards of knowledge, competency and a duty of care to their clients, through their code of professional conduct and ethical practice and an accepted scope of practice.[9] However, while this is a requirement of all doctors, physicians, physiotherapists and podiatrists who work alongside athletes, accreditation is not a current requirement to practice as a sports scientist.

While accreditation as a sport scientist is not compulsory, some sports scientists do choose to voluntarily accredit themselves with Exercise & Sports Science Australia (ESSA). [10] ESSA, previously known as The Australian Association for Exercise and Sports Science (AAESS), was officially founded in 1991 to meet the professional needs of exercise and sports scientists in Australia. ESSA has administered a sports science accreditation program since 1996. During this time, a total of 52 sports scientists have been accredited. This number is far fewer than the current number of practicing sports scientists due to it not being a mandatory requirement.

To be eligible for accreditation as a sports scientist with ESSA requires completed post-graduate qualifications in sports science in at least one of the four discipline areas of sports science (i.e., biomechanics, physiology, skill acquisition or strength science), plus completion of a minimum of 500 hours of supervised professional practice, under the direction of a sports scientist. Many sports scientists have also completed PhDs in discipline areas within or related to sports science. In addition, ESSA members are required to meet annual requirements for continuous professional development, through ESSA accredited professional development courses and programs (https://www.essa.org.au/professional-development/ce-courses/) and adhere to the Code of Professional Conduct and Ethical Practice. ESSA, via its National University Course Accreditation Program (NUCAP), also accredits university programs that produce exercise and sports scientists.

The Australian situation is in contrast with the British system where accreditation as a high performance sports scientist with the British Association for Exercise and Sports Science (BASES) is a requirement for employment in the English Institute of Sport and many other professional positions.[11] UK Sport heavily invested in sports science in the lead up to the London Olympics through increasing the volume and sophistication of the sport science and sport medicine support provided to Great Britain's Olympic athletes.[12] Great Britain's recent international sporting success has been attributed, in part, to the investment they made into high quality sports

[9] National Alliance of Self Regulating Health Professional, 2012, "Harnessing self-regulation to support safety and quality in healthcare delivery: A comprehensive model for regulating all health practitioners"
[10] http://www.essa.org.au
[11] http://theconversation.com/sports-science-time-for-proper-accreditation-12095
[12] http://www.bbc.co.uk/sport/0/olympics/19210165

science.[13]

The ESSA requirements for accreditation are high and difficult to achieve, which may be a further reason there are so few accredited sports scientists. It may therefore be possible for ESSA or a similar body to establish an accreditation model for professional sports along similar lines to the ESSA model, however more applicable for a sport scientist in a professional sporting club. For example, should all sport scientists require post graduate qualifications?

b) The role of boards and management in the oversight of sports scientists inside sporting organisations:

Recent events have focused attention on the respective roles of Boards and Management in the oversight of sports scientists in sporting organisations as part of the increased concern about matters relating to the integrity of sport.

Each of the COMPPS' sports had addressed or is addressing the systems and protocols that are in place in their sports that relate to integrity. They have responded positively and effectively to the issues raised by the ACC and ASADA. Details can be provided on request.

Sports entities generally have clear reporting lines at all levels of management. As stated earlier, sports scientists work as an integral part of a multi-faceted sports medicine and science team, in collaboration with other relevant health, medical, and conditioning professionals (e.g., sports physicians, sports doctors, physiotherapists, sports dieticians, sports psychologists, and strength and conditioning coaches) as a part of the "high-performance team" within a club or organisation.

The position of the sports scientists in the organisation chart and the reporting lines that flow from this vary from one organisation or club to the next. This depends on the experience and status of the individuals who make up the team. While there are no hard and fast rules, the high-performance team is usually in the third or fourth level of management.

The CEO is at the first level. Several general managers or directors form the next level and report directly to the CEO. The head of the high-performance team usually reports to one of these general managers or directors who is responsible for the operational side of the entity, often entitled "General Manager Operations" or

[13] http://www.bbc.co.uk/sport/0/olympics/19210165

"Director of Operations".

In some sports entities, the head of the high-performance team will report to a head coach or director of coaching who will in turn report to a general manager, placing the sports scientist at the fourth level of management.

In some organisations, the head of the high-performance team will report directly to the CEO, placing him or her at the second level of management.

It is respectfully submitted that the current system is the most appropriate system. Each organisation should be left to form its own organisation chart and put in place the controls, systems and processes that minimise risk.

The Board of Directors is ultimately responsible for the governance and management of the organisation. It performs its many governance functions such as setting strategy and risk appetite and providing funding for the organisation as part of the normal work of the Board. It reserves part of the management function of the organisation to itself (for example, it might reserve to the Board the power to appoint the head coach) and delegates the bulk of the management function to the CEO and holds him or her to account for performance of those functions. Ideally, this is done as a formal delegation of authority.

In the usual course of events, the Board would not be involved in day-to-day matters such as implementation of the high-performance policy or the use of supplements. It puts in place appropriate reporting processes to enable it to be informed about all aspects of the Club and would expect to be made aware of any serious issues by the CEO or through a report from its Risk and Compliance Committee.

The ASC Best Practice Principles seek to place a more comprehensive process around the Board's obligations[14]. It requires Boards to *"inform themselves as to SSSM practices of the organisation, to ensure that they are best practice, promote a culture of integrity and to comply with legislative and regulatory requirements."*

It then lists 8 areas in respect of which the Board should seek information from management so as to enable it to perform its duty.

We acknowledge that the process outlined by the ASC is comprehensive and seeks to provide firm guidance to sports Boards. The professional sports have not yet had the opportunity to assess, discuss and evaluate the proposed principles.

[14] AIS Sports Science and Sports Medicine Principles – www.ausport.gov.au/ais/australias_winning_edge/sports_science_sports_medicine_best_practice_principles

c) The duty of care of sports scientists to athletes, and the ethical obligations of sports scientists in relation to protecting and promoting the spirit of sport:

i. The duty of care

A duty of care is a legal obligation that is imposed on an individual requiring that he or she adhere to a standard of reasonable care while performing any acts that could forseeably harm others[15].

The duty of care of sports scientists can be compared to the duty of care of trainers and other health and medical professionals in the Australian medical, health and fitness industry. An important difference is that there is not currently one statement of professional conduct that guides the duty of care of sports scientists. Some insight however, can be gained from the ESSA Code of Professional Conduct and Ethical Practice (version 1.1.1 August 2011).

The duty of care of a sports scientist includes, but is not limited to:

- holding the interests and welfare of athletes to be of primary importance (while taking account of any obligations under the law);
- ensuring appropriate relations are maintained with all relevant health and medical professionals (e.g., sports physicians, sports doctors, physiotherapists, sports dieticians, and sports psychologists)
- providing services that are based upon the best scientific information and professional practice currently available;

It is also important to recognise that sports scientists are and should be subject to the ordinary common law rules of negligence.

It is quite clear that recent reports of alleged activities by so-called sports scientists, contained in the Organised Crime and Drugs in Sport Report commissioned by the Australian Crime Commission, are inconsistent with the duty of care of sports scientists.

> *"Sports scientists are now influential in professional sport in Australia, with some of these individuals prepared to administer substances to elite athletes which are untested or not yet approved for human use. Some sports scientists and doctors are experimenting on professional sports persons in an effort to determine if particular substances can improve performance without being detected".*[16]

[15] Donoghue v Stevenson (1932) UKHL 100
[16] Australian Crime Commission – Organised Crime and Drugs in Sport – February 2013

The COMPPS' sports support the formulation of a duty of care for sports scientists, using ESSA's Code as a guide which recognises the paramountcy of athlete welfare.

ii. The ethical obligations of sports scientists in relation to protecting and promoting the spirit of sport:

The spirit of sport is a difficult concept. It seeks to identify sport at its best and use that as a standard for all participants.

At its most basic level, sport is about playing games. Each sport has rules that have been developed over long periods of time. Players and coaches understand the limits imposed by the rules.

The concept of the spirit of sport goes beyond the rules of the game. It revolves around unstated ethical obligations and expectations.

As this Inquiry is a response to anti-doping concerns, it is appropriate to look at the WADA commentary on the spirit of sport.

"Anti-doping programs seek to preserve what is intrinsically valuable about sport. This intrinsic value is often referred to as the "the spirit of sport", it is the essence of Olympism, it is how we play true. The spirit of sport is the celebration of the human spirit, body and mind, and is characterized by the following values:

- *Ethics, fair play and honesty*
- *Health*
- *Excellence in performance*
- *Character and education*
- *Fun and joy*
- *Teamwork*
- *Dedication and commitment*
- *Respect for rules and laws*
- *Respect for self and other participants*
- *Courage*
- *Community and solidarity*

Doping is fundamentally contrary to the spirit of sport."[17]

It has been suggested that a small number of individuals have breached the spirit of

[17] World Anti-Doping Code 2011, page 2.

sport in seeking to push boundaries and gain unfair advantage.

A win-at-all costs approach to sport also damages the spirit of sport.

It is respectfully submitted that the ACC and ASADA inquiries provide an opportunity for sporting bodies to seek to commence a dialogue that will seek to protect and promote the spirit of sport.

Turning specifically to sports scientists, again there is not currently one statement of professional conduct that guides the ethical obligations of sports scientists in relation to protecting and promoting the spirit of sport. Further insight however, can be gained from the ESSA Code of Professional Conduct and Ethical Practice (version 1.1.1 August 2011). One of the most important ethical obligations of sports scientists is to fully inform athletes of the risks, benefits and alternatives of any practice in a language that is easily understood by all players.[18] Equally important is the idea that an athlete can withdraw their consent at any time without fear of it affecting their place in the sport. ESSA accreditation requires exercise and sports scientists to be fully informed of the nature and obligations of informed consent.

Another important ethical obligation of sports scientists is to maintain a "level playing field" by ensuring that all practices are compliant with the WADA code. In many Australian sporting codes, sports scientists have gained increasing influence over decision making within the club. Given this influence, sports scientists have an ethical obligation to promote and encourage training and competition in a doping-free sporting environment. This will help to protect and promote the spirit of sport not only among the athletes that they work with, but also among young athletes who are influenced by the practices of their sporting heroes. [19]

d) Avenues for reform or enhanced regulation of the profession:

The ongoing media attention around alleged "sports scientists" highlights the need for greater regulation, and perhaps compulsory accreditation, of sports scientists involved in professional sport. It seems incongruous that sports scientists, with such significant responsibility for the health and well-being of professional sports people, can operate in an environment that does not demand professional accreditation. This is in stark contrast to all other members of the sports science and medicine team (e.g., sports physicians, sports doctors, physiotherapists, sports dieticians, and sports psychologists).

[18] http://theconversation.com/embedded-sports-scientists-and-doctors-walk-an-ethical-tightrope-12081
[19] http://www.couriermail.com.au/news/queensland/st-josephs-nudgee-college-rocked-by-steroids-arrests/story-e6freoof-1226634149907

If compulsory accreditation or regulation of sports scientists is introduced, it is important that it is administered by a national, independent body. This would help to avoid a "piece-meal" approach, different standards for different sports, and, most importantly, code hopping (i.e., sports scientists not adhering to appropriate standards moving to another sport).[20] Another advantage of an independent body is that it provides better protection to sporting organisations from future allegations of misconduct than individual self-regulation does, and may also help alleviate concerns of cover-ups and inconsistent standards. This has recently been highlighted by longstanding allegations that the International Cycling Union was more interested in protecting Lance Armstrong and the image of cycling than cracking down on performance-enhancing drugs.[21] It is also important that this national, independent body is linked to other international professional accreditation systems, such as the British Association of Sport and Exercise Sciences, and Sport and Exercise Science New Zealand, to ensure that sports scientists who lose their accreditation in one country are not simply able to move to another country. Equally, that consistency allows for working easily across jurisdictions.

e) Any other related matter:

We welcome this opportunity to make this submission to the Senate Committee Inquiry into the practice of sports scientists in Australia.

Signed for and on behalf of the COMPPS' Members.

31 May, 2013.

Malcolm Speed

Executive Director.

[20] http://www.foxsports.com.au/league/nrl-premiership/sports-science-guru-at-centre-of-doping-investigation-used-questionable-methods-at-nrl-clubs/story-fn2mcuj6-1226571148467#.UaP44Dfqc7g

[21] http://www.nydailynews.com/sports/more-sports/panel-forming-lance-coverup-probe-article-1.1353402 - ixzz2UXeLpkGC

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