PATRICK A. WARD PhD, CSCS
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Skills and Experience

- 10+ years in variety of roles (e.g., data analyst, researcher, strength coach) within the applied sport setting
- Strong knowledge of evidence-based practice in sports science, athlete monitoring strategies, and statistical analysis of data generated by groups and individual athletes
- Able to design and conduct scientific research in sport
- Experienced in data aggregation, clean-up, and analysis
- Able to create end-user applications (e.g., web applications) to contextualize data analysis for practitioners in the field
- Experienced with various athlete monitoring technologies (e.g., Catapult GPS, OptoJump, Nordbord)

Technologies

- R statistical analysis software
- Python
- SQL
- Power BI
- Microsoft Office applications

Advisory Positions

- Adjunct Appointment – Human Performance Research Center at University of Technology Sydney
- Nike Scientific Advisory Board

Employment History

Seattle Seahawks (NFL)

Dates: September 2017— Present

Position: Director of Research and Development

Responsibility:
- Develop statistical approaches to evaluate player value, quantify future success projections, and model injury risk to aid management and personnel staff in decision-making process.
- Conduct draft analysis to evaluate new NFL prospects and identify talent.

- Perform daily analysis of player monitoring data (e.g., GPS, accelerometer, session RPE, wellness).
- Conduct research on new technologies for player health to ensure validity and reliability.
- Develop player monitoring strategies around rehabilitation and return-to-play.
- Create end user reports and web applications for easy access to data.

Seattle Seahawks (NFL)

Dates: July 2014— September 2017
Position: Sports Science Analyst

Responsibility:
- Set up player monitoring strategies and develop analysis to assist coaching, strength and conditioning, and medical staffs on the current health status of individual players.
- Develop daily reports to provide decision makers with relevant information to make decisions around training modifications for players.
- Establish an evidence-based approach to monitoring athletes during rehabilitation and return-to-play.

Canada Men's Basketball – National Team

Dates: July 2013— September 2014
Position: Applied Physiologist & Sports Science Consultant

Responsibility:
- Set up best practices methods for data collection and analysis for the senior men's team.
- Worked with the head strength and condition coach and medical director to plan training interventions for players based on physiological needs.
- Co-authored manuscript detailing data collection processes for all junior level and developmental teams within the Canadian basketball system.
- Assisted in the development of a strength and conditioning training methodology for all basketball squads below the senior team.

Nike Sports Research Lab

Dates: October 2012— July 2014
Position: Sports Scientist

Responsibility:	· Conducted athlete assessments for high-performance sports research projects.
	· Designed training programs and oversaw training load monitoring strategies for Nike-sponsored athletes.
	· Interpreted assessment outcome data for coaches and athletes.

Optimum Sports Performance

Dates:	June 2006— October 2012
Position:	Founder

Responsibility:	In addition to owning and managing the business:
	· Carried out all aspects of the development and implementation of scientific sports performance programming for athletes in a variety of disciplines.
	· Implementation included overseeing athlete assessment, program design to meet performance demands of the specific sport, coaching athletes, soft tissue/massage therapy, recovery and regeneration sessions, and appropriate nutritional counseling.
	· Worked with professional and amateur athletes in a variety of sports, such as volleyball, golf, soccer, hockey, baseball, swimming, cycling, and marathon running.
	· Consulted to professional clubs such as the Seattle Sounders Soccer Club, Eastern Washington University Football, and the Arizona Sundogs of the Central Hockey League.

Education

Institution:	Liverpool John Moores University
City/Country:	Liverpool, U.K
Qualification:	Doctor of Philosophy
	Thesis Title: *An Evaluation of the Physical Demands of American Football Training in the NFL*
Completed:	2018

Institution:	California University of Pennsylvania
City/Country:	California, PA
Qualification:	M.S. Exercise Science & Health Promotion
Completed:	2007

Institution:	Berklee College of Music
City/Country:	Boston, MA

Qualification: B.A. Music Performance (Jazz Guitar)
Completed: 2001

Published Research

1. **Ward P**, Ramsden S, Coutts A, Hulton A, Drust B. (2018). Positional differences in running and non-running activities during elite American football training. J Strength Cond Res; 32(7): 2072-2084.

2. **Ward P**, Tankovich M, Ramsden JS, Drust B, Bornn L. (2018). Volume and intensity are important training related factors in injury incidence in American football athletes. Sloan Analytics Conference Paper.

3. Sullivan C, Kempton T, **Ward P**, Coutts AJ. (2018). Factors associated with early progression in professional Australian football players. J Sports Sci, 36(19), 2196-2201.

4. Barrett S, McLaren S, Spears I, **Ward P**, Weston M. (2018). The influence of playing position and contextual factors on soccer players' match differential ratings of perceived exertion: A preliminary investigation. Sports; 6(1).

5. **Ward P**, Coutts AJ, Pruna R, McCall A. (2018). Putting the 'I' back in team. Int J Sports Physiol Perform, E-published ahead of print.

6. Campbell BI, Bove D, **Ward P**, Vargas A, Dolan J. (2017). Quantification of training load and training response for improving athletic performance. Strength Cond J; 39(5), 3-13.

7. Morrison S, **Ward P**, duManoir, GR. (2017). Energy system development and load management through the rehabilitation and return to play process: A clinical commentary. International Journal of Sports Physical Therapy; 12(4), 697-710.

Research Conference Presentations

1. D'Amelio, **Ward P**, Coutts, AJ. Quantifying the match activity demands of NBA Basketball. European Conference of Sports Science (2018).

2. **Ward P**, Tankovich M, Ramsden JS, Drust B, Bornn L. Volume and intensity are important training related factors in injury incidence in American football athletes. Sloan Analytics Conference – Invited presentation as part of the research competition (2018).

3. Brookreson NB, **Ward P**. Examination of Heart Rate Characteristics of Division I Women's Basketball. NSCA National Conference (2017).

4. **Ward P**, Batterham A, Coutts A, Hulton A, Riddle D, Ramsden S, Garcia T, Drust B. Within-Subject Correlation of Session-Rating of Perceived Exertion and Player Load in American Football. NSCA National Conference (2016).

5. **Ward P**, Gopaladesikan S. Inferring the Influence of Training Load on Player Readiness. Cascadia Symposium of Statistics in Sport (2016).

6. **Ward P**, Riddle D, Ramsden S, Garcia T, Drust B. An Evaluation of the In-Season Micro-Cycle Planning For Elite NFL Players. World Congress of Science in Football (2015).

Certifications and Memberships

- National Strength and Conditioning Association – Certified Strength and Conditioning Specialist
- National Academy of Sports Medicine – Performance Enhancement Specialist
- USA Weightlifting – Certified Club Coach