

DR REBECCA KATE RANDELL

EDUCATION

2009 - 2013: Doctor of Philosophy (PhD.). Thesis: Factors affecting fat oxidation in exercise. Sport and Exercise Sciences, University of Birmingham, UK.

2006 - 2009: 1st Class Honours. Bachelor of Science (BSc.) in Sport and Exercise Sciences, University of Birmingham, UK.

EMPLOYMENT

April 2021 – Present: Associate Principal Scientist; Gatorade Sports Science Institute (GSSI); R&D Life Sciences Engagement, PepsiCo

Responsibilities:

- Strategy lead for the application of sports science to female athletes and more broadly to the female cohort.
- Research and Development Innovation Dossier owner on the topic of Women's Physical Performance
- Lead the organisation and execution of GSSI Expert Panel, Sports Medicine articles and Sports Science Exchange articles.
- Research: Focusing on physiology and nutrition interventions for female athletes.

March 2017 – March 2021: Senior Scientist, Gatorade Sports Science Institute (GSSI), R&D Life Sciences, PepsiCo

Responsibilities:

- Management of 54 GSSI global advisors.
- GSSI strategy lead for LATAM, Italy and APAC.
- Supported Gatorade Global in global education, claims and partnerships.
- Supported internal Research and Development Innovation Dossiers on the topic of Sleep.
- Supported nutritionist at three professional football clubs.
- Research: Focusing on physiology and nutrition in elite male and females football players.
- Sports Nutritionist for female Indian badminton player.
- Manager for GSSI student placement; won Loughborough University Placement of the Year in 2017.

April 2013 – Feb 2017: Scientist, Gatorade Sports Science Institute, Global Nutrition R&D, PepsiCo

Responsibilities:

- Took a lead role in testing and educating 400+ athletes at the Gatorade Sports Science Institute, Loughborough, UK.
- Ran a variety of physiology and performance tests such as FATMAX/VO₂max, Lactate Threshold, Time Trial, Steady State exercise and Wingate.
- Executed field-based tests such as fluid balance and sweat testing.
- Used multiple techniques to measure body composition: Dual-energy X-ray Absorptiometry (DXA), BODPOD, Skinfolds and Bioelectrical Impedance Analysis (BIA).
- Collected and prepared blood samples.
- Analysed data sets for scientific paper publication.
- Mined data sets to formulate bespoke algorithms.

May 2012 – March 2013: Testing Administrator, Gatorade Sports Science Institute, Global R&D, PepsiCo.

Responsibilities:

- Assisting and coordinating lab and field-based tests.
- Data handling and statistical analysis/interpretation.
- Utilising research methodology techniques to provide subject programmes coordinating with their human physiology results.

ADDITIONAL POSITIONS

- **Visiting Fellow:** Loughborough University School of Sport, Exercise and Health Sciences, Loughborough, UK (2014 – Present)
 - **Advisory Panel Member:** The Women's Sport Collective (2022 – Present)
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PUBLICATIONS

- Anderson, R., Rollo, I., **Randell, RK.**, Martin, D., Twist, C., Grazette, N., & Moss, S. (2023). A formative investigation assessing menstrual health literacy in professional women's football. *Science & medicine in football*, 1–7.
- Tarnowski CA, Rollo I, Carter JM, Lizarraga A, Porta Oliva M, Clifford T, James LJ, **Randell RK.** Fluid Balance and Carbohydrate Intake of Elite Female Soccer Players during Training and Competition. *Nutrients*. 2022; 14(15): 3188.
- **Randell RK,** Clifford T, Drust B, Samantha LM, Unnithan VB, De Ste Croix MBA, Datson N, Martin, D, Mayho H, Carter JM, Rollo I. Physiological Characteristics of Female Soccer Players and Health and Performance Considerations: A Narrative Review. *Sports Med*. 51(7): 1377-1399.
- Rollo I, **Randell RK,** Baker L, Leyes JY, Medina Leal D, Lizarraga A, Mesalles J, Jeukendrup AE, James LJ, Carter JM. Fluid Balance, Sweat Na⁺ Losses, and Carbohydrate Intake of Elite Male Soccer Players in Response to Low and High Training Intensities in Cool and Hot Environments. *Nutrients*. 2021; 13(2):401.
- Surapongchai J, Saengsirisuwan V, Rollo I, **Randell RK,** Nithitsuttibuta K, Sainiyom P, Leow CHW, Lee JKW (2021). Hydration Status, Fluid Intake, Sweat Rate, and Sweat Sodium Concentration in Recreational Tropical Native Runners. *Nutrients*. 2021 Apr 20;13(4):1374. doi: 10.3390/nu13041374.
- **Randell RK,** Anderson R, Carter JM, Rollo I (2020) Self-reported current sleep behaviors of adult athletes from different competitive levels and sports. *Sleep Sci. Epub*.
- Moss SL, **Randell RK,** Burgess D, Ridley S, ÓCairealláin C, Allison R, Rollo I (2020) Assessment of energy availability and associated risk factors in professional female soccer players. *Eur J Sport Sci. Aug;6: 1-10*.
- Abbott W, Brett A, Brownlee TE, Hammond KM, Harper LD, Naughton RJ, Anderson L, Munson EH, Sharkey JV, **Randell RK,** Clifford T (2020). The prevalence of disordered eating in elite male and female soccer players. *Eat Weight Disord. Feb; 27*.
- Barnes KA, Carter JM, Anderson ML, Stofan JR, Pahnke MD, **Randell RK,** Baker LB (2019). Sport Specific Normative Data for Sweating Rate and Sweat Sodium Loss in Athletes: An Update. *J Sports Sci. Oct; 37(20): 2356-2366*.
- **Randell RK,** Carter JM, Jeukendrup AE, Lizaarraga MA, Yanguas JI, Rollo I (2019). Fat Oxidation Rates in Professional Soccer Players. *Med Sci Sports Exerc. Aug; 51(8): 1677-1683*.
- **Randell RK,** Rollo I, Roberts TJ, Dalrymple K, Jeukendrup AE, Carter JM (2017). Maximal Fat Oxidation Rates in an Athletic Population. *Med Sci Sports Exerc. Jan;49(1):133-140*.
- Svendsen IS, Killer SC, Carter JM, **Randell RK,** Jeukendrup AE, Gleeson M (2016). Impact of intensified training and carbohydrate supplementation on immunity and markers of overreaching in highly trained cyclists. *Eur J Appl Physiol; 116(5):867-77*.
- Jacobs DM, Hodgson AB, **Randell RK,** Mahabir-Jagessar-T K, Garczarek U, Jeukendrup AE, Mela DJ, Lotito S (2014). Metabolic response to decaffeinated green tea extract during rest and moderate-intensity exercise. *J Agric Food Chem; 62(40):9936-43*.
- Hodgson AB, **Randell RK,** Mahabir-Jagessar-T K, Lotito S, Mulder T, Mela DJ, Jeukendrup AE, Jacobs DM (2014). Acute effects of green tea extract intake on exogenous and endogenous metabolites in human plasma. *J Agric Food Chem; 62(5):1198-208*.

- **Randell RK**, Hodgson AB, Lotito SB, Jacobs DM, Rowson M, Mela DJ, et al. Variable Duration of Decaffeinated Green Tea Extract Ingestion on Exercise Metabolism (2014). *Med Sci Sports Exerc*; 46(6):1185-93.
- **Randell RK**, Hodgson AB, Lotito SB, Jacobs DM, Boon N, Mela DJ, et al. No effect of 1 or 7 d of green tea extract ingestion on fat oxidation during exercise (2013). *Med Sci Sports Exerc*. 45(5):883-91.
- Hodgson AB, **Randell RK**, Boon N, Garczarek U, Mela DJ, Jeukendrup AE, et al. Metabolic response to green tea extract during rest and moderate-intensity exercise (2013). *J Nutr Biochem*; 24(1):325-34.
- Hodgson AB, **Randell RK**, Jeukendrup AE. The effect of green tea extract on fat oxidation at rest and during exercise: evidence of efficacy and proposed mechanisms (2013). *Adv Nutr*; 4(2):129-40.
- Hodgson AB, **Randell RK**, Jeukendrup AE. The Metabolic and Performance Effects of Caffeine Compared to Coffee during Endurance Exercise (2013). *PLoS One*; 8(4):e59561.
- Jeukendrup, AE, **Randell, R.** (2011) Fat burners: nutrition supplements that increase fat metabolism. *Obesity Reviews*; 12(10): 841-851.
- Pfeiffer, B, Stellingwerff, T, Hodgson, AB, **Randell, R**, Pottgen, K, Res, P, Jeukendrup, AE (2011). Nutritional Intake and Gastrointestinal Problems during Competitive Endurance Events. *Med Sci Sports Exerc*; 44(2): 344-351.

INVITED ARTICLES

- Spriet L and Randell RK; Regulation of Fat Metabolism; Gatorade Sports Science Institute SSE article #205.
- Randell RK and Spriet L. Nutritional Factors that Affect Fat Oxidation Rates During Exercise. Gatorade Sports Science Institute SSE article #206.

RESEARCH INTERESTS

- Exercise physiology, metabolism and nutrition are my primary research interests. This is reflected in the research I conducted during my PhD and the projects I have been involved in as a scientist at GSSI. More recently I have a particular interest in collecting data on elite male and female football players, as well female athletes in general, to provide novel insights into this specific population.
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CONFERENCE AND EXTERNAL PRESENTATIONS

- Invited presentation: Fat Metabolism During Exercise, Northwest ACSM Regional (2021).
- Invited presentation: Nutrition Strategies for Endurance Athletes, GSSI Brazil webinar (2020).
- Invited presentation: Hydration update new tools and protocols, Sports Tomorrow - Barça Innovation Hub (2020).
- Invited presentation: Factors affecting fat metabolism, CPSDA webinar (2020).
- Virtual poster presentation: Self-reported Sleep Habits of Adult Athletes, a Comparison between Sports and Competitive Level, ACSM (2020).
- Invited presentation: FC Barcelona: 5-year partnership, GSSI conference, Mexico (2018).
- Invited presentation: Fat Oxidation Rates in Athletes, GSSI conference, Mexico (2018).
- Conference Presentation: Fat Oxidation Rates in Professional Footballers, ECSS, Vienna (2016).
- Conference Presentation: Fat Oxidation Rates in Athletes and Nutritional Interventions to increase it, GSSI Pre-Conference ECSS, Malmo (2015).
- Invited Presentation: 10 experts 10 questions, ACSM, Orlando (2014).
- Poster presentation: Comparison of a New Ultrasound Technique versus Skin Fold in Measuring Subcutaneous Adipose Tissue Thickness in Athletes and Metabolic Profiling of Fat Oxidation Curves in an Athletic Population, ACSM, Orlando (2014).
- Poster presentation: The effect of a single bolus, 7 days and 28 days decaffeinated green tea extract ingestion on fat oxidation during exercise, ECSS, Barcelona (2013).
- Conference Presentation: The metabolic effects of green tea extract (GTE) ingestion during exercise. Rank Prize Symposium, Lake District (2012).
- Conference Presentation: No effect of 1- or 7-days Green Tea Extract ingestion on fat oxidation during exercise. European College of Sports Science (ECSS), Burges (2012).

- Poster presentation: Nutritional Intake and Gastrointestinal Problems during Competitive Endurance Events, American College of Sports Medicine (ACSM), Denver, Colorado (2011).

Peer Reviewer:

- European Journal of Sport Science.
 - Medicine and Science in Sport and Exercise
 - International Journal of Sport Nutrition and Exercise Metabolism
 - BMC Nutrition
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ADDITIONAL EXPERIENCES / QUALIFICATIONS AND TRAINING

- Completed multiple field and lab-based tests on the following professional football teams: FC Barcelona, Arsenal FC, Manchester City FC, Tottenham Hotspur FC and the Brazilian National Team.
 - Body composition and physiological testing for professional triathletes and cyclists, GB boxers, GB white-water rafting team and professional rugby union (Leicester Tigers & Northampton Saints), rugby league (Warrington Wolves), football (Burton Albion) and Australian rules football players.
 - International Society for the Advancement of Kinanthropometry (ISAK) - Level 1.
 - Cannulation Training (Phlebotomy Training Services Ltd).
 - IR(ME)R Operator Training.
 - Biochemistry expertise in the blood analysis of metabolic (glucose, free fatty acids, glycerol) and hormonal (insulin) parameters using both ELISA plate and automated (ILAB) blood analysis techniques.
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PERSONAL INTERESTS

In my spare time I am a member of my local running and chair of a local netball club. I am currently learning Spanish and enjoy travelling to experience different cultures.

References are provided on request.