

Andrew Jones, Ph.D.

Professor of Applied Physiology, University of Exeter, UK

Andrew Jones PhD is Professor of Applied Physiology at the University of Exeter, UK, where he was formerly Head of Sport and Health Sciences (2010-2015) and Associate Dean for Research and Impact in the College of Life and Environmental Sciences (2015-2018). Prof Jones received his B.Sc. in Sports Science (First Class, 1991) and his Ph.D. in Exercise Physiology (1994) from the University of Brighton, after which he completed a postdoctoral research fellowship in respiratory



physiology and medicine at the University of California in Los Angeles. Prof Jones was appointed as Senior Lecturer at Manchester Metropolitan University (1997) and was promoted to Reader (2001) and Professor (2004) before joining the University of Exeter in 2005.

Prof Jones is internationally recognized for his expertise in the following areas: 1) control of, and limitations to, human skeletal muscle oxidative metabolism; 2) causes of exercise intolerance in health and disease; 3) respiratory physiology, particularly the kinetics of pulmonary gas exchange during exercise; and 4) sports performance physiology and nutrition, particularly in relation to endurance athletics. The Jones lab combines non-invasive (pulmonary gas exchange, magnetic resonance spectroscopy, near infra-red spectrometry) and invasive (blood and skeletal muscle sampling) techniques to investigate the limitations to sustainable exercise across the spectrum of human conditions. Prof Jones has published ~300 peer-reviewed scientific articles with >22K citations (Google Scholar). He is Editor-in-Chief of the European Journal of Sport Science and a member of the editorial boards of several other leading journals in the exercise sciences.

Professor Andrew Jones

Andrew M Jones PhD DSc is Professor of Applied Physiology in the Department of Sport and Health Sciences. Prof Jones is internationally recognized for his research in the following areas: 1) control of, and limitations to, skeletal muscle oxidative metabolism; 2) causes of exercise intolerance in health and disease; 3) respiratory physiology, particularly the kinetics of pulmonary gas exchange and ventilation during and following exercise; and 4) sports performance physiology and nutrition, particularly in relation to endurance athletics. Prof Jones has authored more than 350 original research and review articles (>38K citations) and is co-Editor of three books. He is a Fellow of the American College of Sports Medicine, the British Association of Sport and Exercise Sciences, the European College of Sport Science and the Physiological Society. Jones is Editor-in-Chief of *Medicine & Science in Sports & Exercise* and serves on the Editorial Board of six other international journals in sports medicine and exercise science. Prof Jones has acted as a consultant to a number of governing bodies of sport or commercial companies including UK Athletics, the English Institute of Sport, Gatorade Sports Science Institute and Nike Inc.

Broad research specialisms:

The main research interests of the laboratory include training, fatigue, efficiency, the physiological determinants of performance and the limitations to muscle oxidative metabolism. Current projects focus on the effects of dietary nitrate supplementation on cardiovascular health, muscle energetics and exercise tolerance.

Qualifications

PhD in Exercise Physiology 1994
BSc (Hons) in Sports Science (1st Class) 1991

Professional qualifications/recognition

Fellow of the European College of Sports Sciences (2000)
Fellow of the American College of Sports Medicine (2001)
Fellow of the British Association of Sport and Exercise Sciences (2002)
Fellow of the Institute of Biology (2004)
Fellow of the Physiological Society (2017)
Citation Award, American College of Sports Medicine (2020).
Honorary Doctorate (DSc), Free University of Brussels (2023).

Career

Following the completion of his PhD in exercise physiology in 1994, Jones completed a postdoctoral research fellowship in respiratory physiology at the Harbor-UCLA Medical Center in Los Angeles. He then worked as a Sports Science Officer at the Welsh Institute of Sport in Cardiff before resuming his academic career at Manchester Metropolitan University where he was appointed as Senior Lecturer in 1997 and then promoted to Reader (2001) and Professor (2004). Prof Jones joined the School of Sport and Health Sciences at the University of Exeter in 2005 and acted as its Director of Research and Head of Department before serving as Associate Dean in the College of Life and Environmental Sciences and then Assistant Deputy Vice-Chancellor for Research and Impact. Prof Jones served on the REF sub-panels for Sport and Exercise Sciences, Leisure and Tourism in 2014 and 2021.

Research interests

Respiratory physiology (particularly the pulmonary gas exchange responses to exercise), elite sports performance physiology (particularly in relation to endurance athletes), and nitric oxide biology (particularly the physiological effects of dietary nitrate supplementation).

Grants/Funding:

Nike (2021) - £60,000 - Influence of intermittent exercise and fatigue-related parameters on cognitive function.

BBSRC US Partnering Award (2019) - £49,965 - Skeletal muscle nitrate metabolism in older age.

BBSRC (2017) - £742,000 - The oral microbiome, dietary nitrate and human health,

Gatorade Sports Science Institute (2013) - £667,000 –Dietary supplementation and exercise performance.

Exeter Leukaemia Fund (2013) - £94,000 - Dietary nitrate supplementation in anaemic patients.

Dunhill Medical Trust (2012) - £115,000 – Influence of dietary nitrate on blood pressure and muscle and cognitive function in older adults.

Gatorade Sports Science Institute (2012) - £349,000 – Influence of a dietary supplement on exercise performance.

Gatorade Sports Science Institute (2012) - £20,000 – Influence of a dietary supplement on exercise performance.

Diabetes UK (2011) - £27,000 – Dietary nitrate and type II diabetes.

GlaxoSmithKline (2010/11) - £19,868 – Influence of a dietary supplement on exercise economy and performance.

GlaxoSmithKline (2009/10) - £128,000 – Influence of a dietary supplement on exercise economy and performance.

Research networks

International research collaborators include:

David Poole, Kansas State University, USA

Jens Bangsbo, University of Copenhagen, Denmark

Shunsaku Koga, Kobe Design University, Japan

Louise Burke, Australian Institute of Sport

Romain Meeusen, Free University of Brussels

Barbora Piknova, US Institutes of Health, Bethesda USA

Joern Rittweger, European Space Agency

Key publications

Jones AM, Kirby BS, Clark IE, Rice HM, Fulkerson E, Wylie LJ, Wilkerson DP, Vanhatalo A, Wilkins BW(2021). Physiological demands of running at 2-hour marathon race pace. *J Appl Physiol* (1985), 130(2), 369-379. Abstract. Author URL.

Morgan PT, Bailey SJ, Banks RA, Fulford J, Vanhatalo A, Jones AM (2019). Contralateral fatigue during severe-intensity single-leg exercise: influence of acute acetaminophen ingestion. *Am J Physiol Regul Integr Comp Physiol*, 317(2), R346-R354. Abstract. Author URL.

Clark IE, Vanhatalo A, Thompson C, Joseph C, Black MI, Blackwell JR, Wylie LJ, Tan R, Bailey SJ, Wilkins BW, et al (2019). Dynamics of the power-duration relationship during prolonged endurance exercise and influence of carbohydrate ingestion. *J Appl Physiol* (1985), 127(3), 726-736. Abstract. Author URL.

Tan R, Wylie LJ, Thompson C, Blackwell JR, Bailey SJ, Vanhatalo A, Jones AM (2018). Beetroot juice ingestion during prolonged moderate-intensity exercise attenuates progressive rise in O₂ uptake. *Journal of Applied Physiology*, 124(5), 1254-1263. Abstract.

Thompson C, Vanhatalo A, Kadach S, Wylie LJ, Fulford J, Ferguson SK, Blackwell JR, Bailey SJ, Jones AM(2018). Discrete physiological effects of beetroot juice and potassium nitrate supplementation following 4-wk sprint interval training. *Journal of Applied Physiology*, 124(6), 1519-1528. Abstract.

Clark IE, Vanhatalo A, Bailey SJ, Wylie LJ, Kirby BS, Wilkins BW, Jones AM (2018). Effects of Two Hours of Heavy-Intensity Exercise on the Power-Duration Relationship. *Med Sci Sports Exerc*, 50(8), 1658-1668. Abstract. Author URL.

Invited lectures (Selected)

Influence of Nitrate on Muscle Oxygenation and Energetics in Hypoxia (2013). Hypoxia, Lake Louise, Canada.

Why Popeye Was Right: Nitrate and Muscle Performance (2012). Sports Medicine New Zealand, Auckland, New Zealand.

Training and Performance in Long Distance Running (2012). Austrian Institute of Sport, Vienna, Austria.

Acute Modulation of Oxygen Uptake during Exercise (2012). ACSM Conference, San Francisco, USA.

Physiological Limitations to Elite Sports Performance (2012). How high, how far, how fast? Edinburgh Science Festival, Scotland, UK.

Dietary Nitrate: The New Magic Bullet? (2011). International Sports Science Sports Medicine Conference, Newcastle, UK.

Oxygen uptake kinetics as a determinant of exercise performance: from physiology to pathophysiology (2011). Antoine Lavoisier Lecture, EACPR Training Course on CPET in Cardiology, Veruno, Italy.