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Experts provide new guidelines to athletes on protein intake

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Dr Oliver Witard. Credit: University of Stirling

A review led by a sports scientist at the University of Stirling has set out new international guidelines for protein intake in track and field athletes.

The findings of the paper form part of the updated International Association of Athletics Federations' (IAAF) consensus statement on Sports Nutrition for Track and Field Athletes.

Dr. Oliver Witard, from Stirling's Faculty of Health Sciences and Sport, led the protein theme of the statement alongside experts at the Norwegian Olympic and Paralympic Committee and Confederation of Sport, and McMaster University in Hamilton, Canada.

Explaining the findings, Dr. Witard, of the Physiology, Exercise and Nutrition Research Group at Stirling, said: "Track and field athletes engage in vigorous training that place stress on physiological systems requiring nutritional support for optimal recovery. In this paper, we highlight the benefits of dietary protein intake for training adaptation, manipulating body composition and optimising performance in track and field athletes.

"We recommend that, to facilitate the remodelling of our muscle proteins – which are turning over rapidly due to their high training volumes – track and field athletes should aim for protein intakes of around 1.6 grams per kilogram of body mass each day if their goal is to increase muscle mass."

The paper also offers guidance to those track and field athletes aiming to optimise their ratio of strength, power or endurance to body weight for a performance advantage.

"Track and field athletes who are restricting energy intake – and have the goal of minimising the loss of lean body mass – should target protein intakes of between 1.6 and 2.4 grams per kilogram of body mass a day," Dr. Witard continued.

The previous IAAF consensus statement was published in 2007 and, in

the time since, evidence underpinning nutrition strategies for adaptation and physique manipulation in athletes has evolved considerably. The updated statement was led by Professor Louise M Burke, of the Australian Institute of Sport and Australian Catholic University.

Dr. Witard added: "High-performance athletes now have access to an up-to-date consensus statement that informs best practice protein nutrition for optimising body composition."

Dr. Witard's paper, Dietary protein for training adaption and body composition manipulation in track and field athletes, also involved Dr. Ina Garthe, of the Norwegian Olympic and Paralympic Committee and Confederation of Sport, and Professor Stuart M Philips, of McMaster University in Canada. It is published in the International Journal of Sport Nutrition and Exercise Metabolism.

More information: Oliver C. Witard et al. Dietary Protein for Training Adaptation and Body Composition Manipulation in Track and Field Athletes, *International Journal of Sport Nutrition and Exercise Metabolism* (2018). DOI: 10.1123/ijsnem.2018-0267

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