In my peregrinations from the ACSM meeting in St Louis to England, Norway, and Canada recently, I found myself desperately searching the airport bookshops for something distracting to while away the hours of travel and came across an absolute cracker of a sports medicine book. No, I don’t mean yet another soccer book, although I do note that the quality of the books has improved out of sight in recent years. It makes a pleasant change given that many sports books are written for fans that follow the text with their fingers! No, this book is about muscles. It is called Prime mover: a natural history of muscles by Steven Vogel (Norton Press).

Dr Vogel is a biomechanist from Duke University in South Carolina, and his book is full of interesting and often arcane facts. For example, the derivation of the word muscle is from the Latin word for mouse, presumably the bunching of a muscle contraction may have looked like a mouse moving under the skin to some imaginative ancient scholar.

He described a fascinating demonstration that occurred at the Royal Society in London in the 1950s when two bicycle frames were joined together so that turning the pedals clockwise on one frame resulted in the other pedals turning anticlockwise. When a rider attempted to turn the pedals forward while the other rider attempted to stop him, the first rider became exhausted while the second was barely troubled. Of course we all now realise the difference between the strength generated by a concentric versus eccentric contraction. It is fascinating that at the dawn of modern sports medicine, august bodies such as the Royal Society shared a common attraction to the exercise capacity of the human body. Where has all that restless scientific curiosity gone?

The issues of muscle function and physiology are amply discussed, but Vogel manages to tread some unusual pathways where he describes some of the nutritional aspects of muscle. In sports medicine, we may be familiar with why the colour of some muscles may differ, but how many people know that there is an inverse correlation between restaurant prices and collagen content of the food they serve? It sounds like vegetarianism makes good solid economic sense!

It is good to see that many of the concepts that we take for granted in sports medicine are now being shared by the wider public. One only has to listen to TV commentators describing how long a fracture of a metatarsal bone takes to heal, and why sleeping in an oxygen tent helps, to realise that sports medicine is at a crossroads. The great unwashed public often knows as much as the team doctors caring for these injuries. We can all too easily become a Cinderella clinical specialty or we can strive for a scientific backbone to our understanding of the discipline of sport and medicine. To gain the respect of the Royal Colleges and other medical groups, the way is clear. For the natural philosophers among us, this is an example of Darwinian natural selection in action. A medical discipline without science will go the way of the Dodo. Evolve or perish!

Expression of concern about content of which Dr Paul McCrory is a single author

This paper is authored by Dr Paul McCrory. During 2021 and 2022 there was an investigation by BJSM and BMJ which found that some of his work was the product of publication misconduct. Such misconduct includes plagiarism, duplicate publication, misquotation and misrepresentation in publications in respect of which he was listed as the sole author.1 We are placing a notice to readers on all content in relation to which he is identified as the sole author to alert them to the conclusions of our investigation.

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