

Dietary Supplements and the High-Performance Athlete

Ronald J. Maughan

University of St Andrews

In May 2017, the Medical and Scientific Commission of the International Olympic Committee assembled a panel of experts at their offices in Lausanne, Switzerland, to discuss the role of dietary supplements in the life of the high-performance athlete. Participants were selected because of their experience and expertise in one or more relevant areas. Detailed discussion papers were prepared in advance of the meeting and were circulated to all participants. The evidence that informed these papers was presented and analyzed in depth over the 3 days of the meeting.

On the last day of the meeting, a short Expert Statement was produced to summarize the main outcomes of the discussions. This statement is included as a prelude to the papers in this issue, and makes several key points. Among these are a recognition that dietary supplements are a legitimate part of the high-performance athlete's preparation that, when used appropriately, can play a role in maintaining good health, supporting effective training, and optimizing performance in competition. It is also recognized, however, that the evidence for the efficacy of many of the supplements used by athletes is limited. Even where some evidence does exist, little is derived

from studies of elite athletes and few studies have used experimental models that resemble sporting contests. A further key point emphasized in the Expert Statement is that the use of supplements is not without some risks. Serious adverse effects of supplements are fortunately rare, but include impairments of health and performance as well as the potential for unwitting ingestion of substances that are prohibited under the anti-doping codes that govern elite sport.

This issue of the *International Journal of Sport Nutrition and Exercise Metabolism* contains an overview paper reviewing the main issues discussed at the meeting. It also includes the papers that summarize the evidence base that should underpin the use of dietary supplements by athletes. It also contains papers that provide background information that will help sports nutrition professionals to interpret the available evidence and to make informed decisions when advising athletes. Although the ultimate responsibility for supplement use lies with the athlete, the support team that surrounds the elite athlete has an important responsibility to protect the athlete's health and well-being while striving to maximize performance.

Maughan is with the School of Medicine, University of St Andrews, St Andrews, United Kingdom. Address author correspondence to Ronald Maughan at ronmaughan@st-andrews.ac.uk.