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'International Food Protein Innovation' conference

Sports nutrition can be beneficial for elderly

European Cup footballers and Tour de France cyclists are not the only type of people who can benefit from sports nutrition. Millions of ordinary people – and especially the elderly - can too. Amino acids and peptides, the building blocks of proteins, are key to the efficacy of sports nutrition products. This was one of the take-home messages at the first 'International Food Protein innovation' (FPI) conference organized by the Dutch knowledge and network organization Bridge2Food, on June 12 and 13 in Rotterdam.

Prolonged exercise offers an enormous challenge to the body. While playing football, cycling, or long-distance running, muscles become depleted of the fuels they need, such as glucose and glycogen. More oxidants are produced, causing muscle fatigue and damage to muscle cells. Moreover, essential amino acids are oxidized to supply the body with extra energy. This may result in suppression of the immune system and can retard the body's recovery.

The 100 participants and speakers present at the first FPI agreed that proteins and their building blocks can play an important role in the body's recuperation following strenuous sporting. Some branched chain amino acids - such as leucine, isoleucine and valine - help to keep the immune system functioning after exercise, reduce infections during training, and reduce exercise-induced muscle breakdown. In addition, specific peptides like the ones present in DSM's PeptoPro sports drink are able to accelerate muscle uptake of glucose and to improve muscle glycogen synthesis. Taking food proteins one hour before exercise offers the best protection.

Promising future for elderly

Professional athletes are not the only ones who can benefit. The elderly also stand to gain from using high-quality protein products. According to FPI speaker Rob Child, nutritional biochemist with the British advisory agency Alimentarius, the elderly often suffer from protein deficiency and some have lost up to 70% of their original muscle

mass: "For these people, putting a kettle with water on the stove may be an exercise comparable to a four hundred meter run for an athlete. Although research in the area of protein products for elderly is still in an early phase, the future looks promising."

In his lecture, Child emphasized that a normal diet may not supply all of the essential and non-essential amino acids the body needs. As a result, health and exercise performance may be compromised. He also stressed the importance of the so-called 'cysteine donors' that have emerged as the key to improving cellular antioxidant defences. Found in proteins, these compounds have been shown to reduce free radical damage caused by alcohol, improve skin health and enhance exercise performance. Cysteine donors generate these effects by providing the key amino acid needed to make glutathione, the body's most abundant antioxidant.

New applications

Sports nutrition was not the only topic addressed at FPi 2008. There are some interesting new health applications in the food proteins field, including the use of whey, casein, soy and pea proteins for satiety induction and weight management, and the use of casein hydrolysates for blood glucose regulation in type two diabetes patients. New functional applications that were presented at the conference included potato protein with a high emulsification power (Solanic), gelatine with an higher melting point (Rousselot), and lupin protein as a natural colouring agent.

Global industry platform

FPi 2008 was the first conference to join food manufacturers and suppliers of animal and plant-based proteins. It marked the first step in the creation of a global industry platform for protein professionals. In addition to the annual conferences for senior R&D managers and new business development, several courses will also be set up for this specific target group. The next FPi will take place in the USA in April 2009, and in 2010 FPi will return to Europe.

Bridge2Food

Bridge2Food is a Dutch-based knowledge and network agency founded in 2002. Its key strength is the development of specific platforms for the food industry: 'building bridges between food professionals.' Through its partner company PROSOY Research

& Strategy, several courses and conferences have been organized on topics such as healthy & nutritional bars, foods for schoolchildren, and food products for the elderly. New networks for the meat-free and dairy-free industry have been established in Europe and Asia.

www.bridge2food.com

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Note for the press:

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