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OBITUARY

In memory of Professor Eric Helmer Hultman

Professor Eric Helmer Hultman
10th October 1925 to 9th March 2011
University of Cambridge meeting, 2010

Guest of honour at the 2010 University Cambridge conference on 'Creatine in Health Medicine and Sport' was Professor Eric Helmer Hultman. Born October 1925 in Kristinehamn in Värmland province, Sweden, Professor Hultman gained a Bachelors degree from the Swedish Pharmacology Institute (1946) before gaining a medical degree from the Karolinska Institute in Stockholm (1956). It was whilst undertaking his PhD at St Eriks Hospital, Stockholm, in the early 1960s that Professor Hultman performed the first ever direct studies in humans on the changes in muscle glycogen with exercise, and the influence of diet on the resynthesis of this. This was made possible through the application of the percutaneous muscle biopsy technique, pioneered together with (then) fellow PhD student, Professor Jonas Bergstrom. The innovative studies undertaken at this time were in many respects the birth of modern human exercise and sports science, when applied to muscle and exercise metabolism, and the personal contribution made then by Professor Hultman is today recognised as being one of the most important in unlocking the potential for study in this discipline. From these early studies the importance of dietary carbohydrate for the post exercise resynthesis of muscle glycogen back to its former level, and beyond, was established leading to the dietary procedures practised by nearly all endurance athletes to bring about glycogen loading.

In 1967 Professor Hultman with others published the first study on the breakdown and resynthesis of ATP in human muscle in connection with exercise, and the role played by phosphorylcreatine in the maintenance of ATP supply and fatigue development in mixed muscle. Seminal papers in the 1990s described the increase of the muscle content of creatine and phosphorylcreatine through the use of dietary creatine supplementation, a procedure which led to the wide-spread use of creatine supplements in sport today, and which re-awakened interest in creatine.

Professor Hultman's interests in the effects of creatine elevation in muscle, however, went far beyond the simple enhancement of exercise performance in athletes and the breadth of topics covered by the twelve reviews in this edition are testament to his scientific vision, energy and drive. Today it is evident that creatine has a central role to play in many diverse tissues with effects on neurological and brain cell function, bone mineral density loss in the elderly, ageing of tissues, mitochondrial function, and many more. It is almost certain that further work will result in the introduction of creatine as a treatment in several major conditions. Without doubt this would have brought a still greater smile to Professor Hultman.

Professor Hultman, who's career involved positions at several Stockholm hospitals including Huddinge University Hospital and the Karolinska Institute, and who was the recipient of awards from the Swedish Medical Society (1966), McMaster University (1990), the honour award

for Biochemistry and Exercise (2000) and honourary doctorates from the Universities of Guelph and Waterloo, was one of several giants in muscle and exercise biochemistry and physiology to emerge from Scandinavia during the 1960s. However, always in the forefront of these was Eric. In so many ways the University of Cambridge meeting was a personal tribute to the work, inspiration and leadership of a joyful and creative scientist, Professor Eric Hultman.

On behalf of all of those at the 2010 meeting, and those who had the pleasure to work with Eric in the laboratory.

Professor Roger Harris