



Workshop LAMHNESS

Role of group III/IV muscle afferent feedback in the development of neuromuscular fatigue and exercise performance

Par Markus Amann (Université de l'Utah - Salt Lake City)

Tuesday 7 June 11:00 am -12:00 pm
Campus STAPS – Sciences du Sport, Amphi Rémi RADEL

Workshop LAMHESS : Presentation

Prof. Dr. Amann presents evidence suggesting that group III/IV afferent feedback from locomotor muscle influences locomotor exercise performance through their role in the development of neuromuscular fatigue. These sensory neurons assure appropriate locomotor muscle O₂ delivery and ATP cost of muscle contraction and therefore attenuate peripheral fatigue development and facilitate locomotor exercise performance. However, group III/IV muscle afferents also cause central fatigue and this CNS-mediated decline in locomotor muscle activation limits locomotor exercise performance. Prof. Amann will mainly focus on his own studies as the base for the integrative concept characterizing this presentation.



Markus Amann is a Professor of Anesthesiology and Adjunct Professor in the Departments of Internal Medicine and Biomedical Engineering at the University of Utah. His research focuses on the neural control of the circulation and breathing, and the etiology of central nervous system fatigue during physical exercise. Prof. Amann's work aims at enhancing our understanding of the impact of cardiovascular disease on autonomic reflex function and of mechanisms determining neuromuscular fatigue during physical activity. He has published over 100 peer-reviewed manuscripts in high quality physiology and medical journals, over 20 review articles, 2 book chapters, and over 100 peer-reviewed abstracts. Prof. Amann's research has been funded by the National Institute of Health, the American Heart Association, the Veterans Affairs Merit Award system, and the Swiss National Science Foundation.