Engineering Neuroscience & Health

Department of Biomedical Engineering Division of Biokinesiology and Physical Therapy

ENH SEMINAR SERIES

Presents:

Dr. Roger M. Enoka

University Colorado at Boulder

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Monday

November 23, 2009

4:00 p.m.

Refreshments will be served 3—4 pm

"Unraveling the neurophysiology of muscle fatigue"

Roger Enoka, PhD
Department of Integrative Physiology
Univeristy of Colorado at Boulder

We have known for at least 100 years that impairments in muscle activation can contribute to muscle fatigue. Nonetheless, relatively little is known about what causes the activation deficit. To identify the mechanisms that cause the activation deficit, we have compared the adjustments that occur in muscle and in the nervous system during two similar tasks in which the demand on the central nervous system differs. The more demanding task has a briefer time to failure and involves a unique set of adjustments that differ in some groups of individuals, such as those in whom the function of the nervous system is compromised.

Dr. Enoka is a Professor in the Department of Kinesiology and Applied Physiology. He received his Ph.D. in kinesiology from the University of Washington in 1981, after which he joined the faculty in the Department o Exercise and Sport Sciences at the University of Arizona. He was given a joint appointment in the Department of Physiology in 1986 and was promoted to the rank of professor in both departments in 1992. In 1993 he joined the Department of Biomedical Engineering at the Cleveland Clinic Foundation. Subsequently, he moved to the University of Colorado in 1996. His research interests focus on the neuromuscular mechanisms responsible for acute adjustments (arousal, muscle fatigue) and chronic adaptations (aging, gender, limb immobilization, strength training) experienced by humans in response to performing physical activity. His research program includes both experimental studies on humans and theoretical modeling with computer simulations.

Locations:
Seminar is simultaneously presented

HSC: CHP 147 – LIVE
Center for the Health Professional
HSC Campus Map/Directions:
http://www.usc.edu/about/visit/hsc/

UPC: HNB 100 — Video Conference
Hedco Neurosciences Building
UPC Campus Map/Directions:
http://www.usc.edu/about/visit/upc/

Organized by Professor Francisco Valero-Cuevas http://bme.usc.edu/valero/

Web Cast
http://capture.usc.edu/college/Catalog/pages/catalog.aspx?catalogId=946350f1-ca84-40e7-b867-e16adba01e4e

Information about all seminars can be found at
http://bme.usc.edu/valero/ENH/ENH-Schedule.html