Zurich University of Applied Sciences



# Prediction of Chronicity in Spine Trauma Patients

## Prof. Dr. James M. Elliott

Northwestern University, Feinberg School of Medicine, Chicago Faculty Advisor Northwestern University Institute of Neuroscience (NUIN)

Wednesday, 9 July 2014, from 6 to 7 p.m. Room TN EO.46, Technikumstrasse 71, 8401 Winterthur



Zurich University of Applied Sciences

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#### Prof. Dr. James M. Elliott

James M. Elliott, PT, PhD, is professor at Northwestern University, Feinberg School of Medicine, Chicago, principal investigator of the Neuromuscular Imaging Research Lab, honorary senior research fellow at the University of Queensland, Australia, and faculty advisor in the Northwestern University Institute of Neuroscience (NUIN). He is a neuroscientist working within multiprofessional and multidisciplinary research teams. His research focuses on understanding the pathophysiological mechanisms underlying the transition from acute to chronic pain following a motor vehicle collision (whiplash). Specifically, he utilizes structural and advanced magnetic resonance imaging (MRI) applications to quantify the temporal development of altered spinal cord physiology and muscle degeneration as potential cellular and molecular substrates of persistent pain-related disability. Broad applications of his work include preventing, diagnosing, and treating whiplash-related pain and its sequelae. This research is based on his clinical and research experience and has expanded through interprofessional and interdisciplinary efforts involving the fields of magnetic resonance physics, radiology, biomedical engineering, speech language pathology, neurophysiology, and physical therapy.

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Professor Elliott will share his research findings on quantifying the temporal development of muscular degeneration following spinal trauma and its influence on recovery rates. The talk will provide a focused and scientific-driven insight into the pathophysiological mechanisms underlying poor functional recovery in whiplash and the new directions that are emerging from multiprofessional (and multicultural) collaborative research efforts centred on an integrated biopsychosocial framework.

We are proud to present this first After Work Lecture organized by the new Centre for Health Sciences. We look forward to seeing you in Winterthur!

Prof. Dr. Markus Melloh, Centre for Health Sciences

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