

סמינר מיוחד: פול איווניר – זלאטובסקי

9/3/2016 יום רביעי בשעה 16:00

בנין 51 חדר 15

“Bio-contraption” of joint problems

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Joint pain is a very prevalent problem and 90% of sufferers report pain in multiple joints. Nevertheless, most current rehabilitative research and clinical practice is typically aimed at individual joints and does not consider the temporal or potentially contributing biomechanical factors between multiple joint pain within individuals. Two areas of the body that are most commonly affected by pain are the knee(s) and the spine. The effect of joint pathologies such as knee osteoarthritis (KOA) or low back pain (LBP) on bilateral gait symmetry has gained increased attention during the past 10-15 years.

Understanding the synergy between joints and propagation of one joint pain/disorder to another is important for physical therapists, orthopedic clinicians, rehabilitation scientists, etc. This presentation will walk through the current state of knowledge, demonstrate the gaps in current practice, and share some recent findings, as well as initiate a discussion of some future directions and opportunities for collaborative research. Altogether this talk will help to uncover some priority areas of joint pain research and the need for predictive models of joint pain propagation and prevention.

About the Lecturer

Naira Campbell-Kyureghyan received her PhD from the Ohio State University, USA and is currently a Professor of Bio-engineering at the University of Wisconsin-Milwaukee (UWM). She is the founding director of several research Laboratories and Centers dedicated to researching joint injury and disorder etiology, as well as prevention countermeasures, at UWM. She authored over 100 peer-reviewed publications and presentations, served as an Associate Editor of the Journal of Electromyography and Kinesiology since 2013 and served as the chair of the Department of Industrial Engineering for the past 2 years. Dr. Campbell-Kyureghyan's research was funded by Department of Labor, National Science Foundation, Centers for Disease Control, Department of Defense and numerous industry partners. She has invented and successfully licensed products and holds several pending patents in the US. Additionally she was an invited speaker for many National events and government agencies, such as the US Department of Labor and NASA. Over the past year Dr. Campbell-Kyureghyan was invited to visit seven universities worldwide, including the University of Tel Aviv, Technion and BGU in Israel as a part of her sabbatical leave.