2nd Annual
Udall Center for Parkinson's Disease Research Symposium

Jeffrey M. Hausdorff, Ph.D.

Director, Center for the Study of Movement, Cognition, and Mobility
Tel Aviv Sourasky Medical Center
Professor, Department of Physical Therapy
Sackler Faculty of Medicine, and Sagol School of Neuroscience
Tel Aviv University
Tel Aviv, Israel

"The Interplay Between Gait, Falls and Cognitive Function: Evidence from fNIRS, fMRI and a Multi-modal Intervention"

September 7, 2016

11:00 AM

Danto Auditorium
Frankel Cardiovascular Center

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9:00	*Welcome* **William Dauer, MD and Roger Albin, MD** Director & Associate Director, University of Michigan Udall Center
9:05-9:25	*Mobile brain imaging with high-density EEG* **Daniel P. Ferris, PhD** University of Michigan Departments of Kinesiology and Biomedical Engineering
9:25-9:45	*Alpha-synuclein-mediated nigrostriatal neurodegeneration via a toxic loss of function* **Fredric P. Manfredsson, PhD** Michigan State University Department of Translational Science & Molecular Medicine
9:45-10:05	*Targeting aging as a novel therapeutic strategy for the treatment of Parkinson's disease* **Jeremy M. Van Raamsdonk, PhD** Van Andel Research Institute Center for Neurodegenerative Sciences
10:05–10:20	*Break*
10:20-10:40	*Cholinergic-cognitive pathways: Differential contributions to fall risk?* **Cindy Lustig, PhD** University of Michigan Department of Psychology
10:40-11:00	*Real world loss of balance responses and context in older adults at risk for falls* **Neil Alexander, MD, MS** University of Michigan Department of Internal Medicine, Institute of Gerontology; VA Geriatric Research Education and Clinical Care
11:00-12:00	*The interplay between gait, falls and cognitive function: Evidence from fNIRS, fMRI and a multi-modal intervention* **Jeffrey M. Hausdorff, PhD** Tel Aviv University
12:00-1:00	Lunch - Danto Auditorium

Jeffrey Hausdorff, PhD is Director of the Center for the Study of Movement, Cognition, and Mobility at the Tel Aviv Sourasky Medical Center, and Professor in the Department of Physical Therapy, Sackler Faculty of Medicine, and Sagol School of Neuroscience at Tel Aviv University.

Professor Hausdorff's laboratory investigates the neural underpinnings of gait, postural control, falls and movement disorders in health (e.g., normal, aging, maturation) and pathology (e.g., Parkinson's disease, post-stroke, Alzheimer's disease). Areas of focus include studies of the stride-to-stride fluctuations of gait; the factors that contribute to and regulate these changes; genetic contributions; bilateral coordination; cognitive function-motor interactions, non-invasive brain stimulation, and ambulatory monitoring. His laboratory considers mobility, balance and gait across three closely inter-related planes: a) studies of underlying physiologic and patho-physiologic mechanisms (e.g., gray matter contributions to sub-types of Parkinson's disease; single cell recordings of the STN); b) development of new "bio-markers" that can be used for early diagnosis, prognosis, and for quantitative tracking of disease progression, aging, and the response to therapeutic interventions (e.g., long-term, at-home monitoring using body-fixed sensors); and c) development and assessment of novel interventions for enhancing balance, gait and cognitive function and for reducing the risk of falls (e.g., using virtual reality, pharmacologic therapy studies, motor learning, TMS, tDCS). He and his research team have received widespread recognition for their cutting edge work that integrates the fields of geriatrics, gerontology, neurology, physiology and engineering, including awards from the American Geriatrics Society, IEEE, the American Physiological Society, the American Federation for Aging Research, Pervasive Computing Technologies for Healthcare, and the International Society of Posture and Gait Research. In 2013, Professor Hausdorff was the recipient of the Gerontological Society of America's Excellence in Rehabilitation of Aging Persons Award. In 2014, his 2001 paper on gait variability and fall risk was listed among the top 5 most cited papers in the history of rehabilitation. In 2016, he was named as a fellow of the Gerontological Society of America.

Previous Keynote Lecturers:

2015 Etienne Hirsch, PhD