Engineering Neuroscience & Health

Department of Biomedical Engineering

Division of Biokinesiology and Physical Therapy





Presents:

Dr. Tishya Wren

Childrens Hospital Los Angeles

TWren@chla.usc.edu

Monday

October 26, 2009

4:00 p.m.

Refreshments will be served 3-4 pm

"Gait Analysis and the Patient Care Process"

Tishya Wren, PhD

Childrens Hospital Los Angeles, Director of Research: Motion Analysis Laboratory University of Southern California, Departments of Orthopaedics, Radiology & Biomedical Engineering

Clinical gait analysis applies motion capture technology and dynamic electromyography to guide operative and non-operative treatment planning for patients with movement disorders such as cerebral palsy. While this testing provides quantitative 3D data that cannot be obtained through standard clinical evaluation, the use of gait analysis as a clinical test remains controversial. This seminar will examine how gait analysis fits into the patient care process and the barriers preventing more widespread adoption of this medical technology. Many of the lessons learned from gait analysis apply to medical technologies in general and more particularly to technology-based diagnostic tests.

Dr. Wren is a biomechanical engineer working in clinical environment. As Director of Research for the Motion Analysis Laboratory at Childrens Hospital Los Angeles (CHLA), Dr. Wren conducts clinical and basic research in several different areas of orthopaedics. Two of the primary areas are (1) evaluation and treatment of gait abnormalities in children with neurologic deficits and (2) assessment of bone density and fractures in children. This research is carried out in collaboration with colleagues in the Childrens Othopaedic Center as well as faculty in the Childrens Imaging Research Program.

Locations:

Seminar is simultaneously presented

UPC: HNB 100 - LIVE Hedco Neurosciences Building

UPC Campus Map/Directions: http://www.usc.edu/about/visit/upc/

HSC: CHP 147 — Video Conference Center for the Health Professional

HSC Campus Map/Directions: http://www.usc.edu/about/visit/hsc/

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

Web Cast

 $\underline{http://capture.usc.edu/college/Catalog/pages/catalog.aspx?catalogId=946350f1\text{-}ca84\text{-}40e7\text{-}b867\text{-}e16adba01e4e}$

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