CABRR SEMINAR SERIES
Monday October 10, 12:00 - 1:00 PM, NRH Auditorium

Locomotor Adaptation Following Stroke

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Abstract: Over 7.7 million people are living with the effects of a stroke and 700,000 people will experience a stroke or recurrence of a stroke annually. Recently, treadmill training (with or without body weight support) has emerged as an intervention that improves walking performance post-stroke. The most common measurement of improved walking performance has been an increase in over ground walking speed, however, the changes in the locomotor pattern that underlie the improvement in walking speed following treadmill training are not currently understood. Without insight into the mechanisms that are responsible for changes, it is difficult to predict which patients will benefit most from a specific type of treadmill training (i.e., body weight support, speed-intensive). This presentation will discuss recent results from studies of persons with hemiparesis walking on a split-belt treadmill, where the speed of each leg can be controlled independently. The results of these studies provide information about the capacity of stroke survivors to adapt their interlimb coordination during walking and allow us to determine whether the nervous system is still capable of producing a more normal pattern of movement.

Dr. Reisman received her bachelor's degree in Health Science and her master's degree in Physical Therapy from the College of St. Scholastica in 1993. She was a full-time physical therapy clinician primarily in the areas of neurologic and geriatric rehabilitation until returning to graduate school in 1999. She earned a PhD from the Interdisciplinary Program in Biomechanics and Movement Science at the University of Delaware in 2003. She received post-doctoral training with Dr. Amy Bastian at Johns Hopkins University and is currently an Assistant Professor in Physical Therapy at the University of Delaware where she teaches in the neurologic rehabilitation courses and is Academic Director of the Neurologic and Older Adult Physical Therapy Clinic. Her research goal is to understand changes in interlimb coordination following stroke and to develop scientifically-based therapies to advance the physical rehabilitation and recovery of locomotion in persons following a stroke.