

**Department of Epidemiology and Biostatistics
Biostatistics Seminar**

Wednesday, February 18, 2015
12:00pm - 1:00pm -- WG73

“Obesity and Endometrial Cancer”

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Abstract: Obesity is a leading risk factor for endometrial cancer (EC), particularly Type I forms, which are increasing in the U.S. Although death rates from most cancers have been decreasing, overall mortality in EC patients is increasing. EC survivors have the highest risk of death among all obesity-associated cancers yet only two prior lifestyle interventions have focused on these women. High intensity exercise has been shown to increase neurotrophins and neurological reward via altered striatal dopamine in animals; and, in humans, chronic high intensity exercise enhances meal-induced satiety and may reduce hedonic eating. 'Assisted' exercise, a mode of exercise whereby a patient's voluntary exercise rate is augmented mechanically, improves motor control and has activation patterns consistent with modulation of brain dopamine levels in Parkinson's disease patients. We are conducting a novel randomized clinical trial ('REWARD') that is evaluating the effects of 'assisted' compared to voluntary rate exercise, coupled with a group dietary behavioral intervention, on physiological, behavioral and neural outcomes in obese EC survivors. In this presentation, I will present the epidemiological evidence for the associations between obesity and EC development and EC survival, discuss the putative mechanisms driving these associations and present the rationale and details of the transdisciplinary 'REWARD' trial, which, if effective, has the potential to improve long-term weight loss and survival in obese individuals with and without cancer.