

Dr. Lori Mosca

Poor sleep patterns have been associated with obesity, hypertension, diabetes, and cardiovascular disease (CVD). Women may be at particular risk of abnormal sleep patterns and its consequences due to unique life stages and circumstances, such as caregiving responsibilities and hormonal changes. Despite growing evidence of the importance of sleep for cardiovascular health, it is not established if the relation is causal or modified by hormonal status. The overarching goal of our proposed Go Red for Women Strategically Focused Research Network center is to address scientific gaps in knowledge through synergistic population, clinical, and basic science research, and training multidisciplinary fellows dedicated to women's heart disease and sleep research. The research, training, and educational specific aims of our Center are to: 1) Document patterns of sleep and potential confounders and modulators of CVD risk among a diverse population of women at different life stages, and to assess causality via a rigorous clinical trial of sleep restriction and to evaluate vascular mechanisms of risk; 2) Train and engage fellows from our Center and the network in multidisciplinary research; 3) Translate and disseminate scientific findings of our Center and the research network to key stakeholders, including health providers, policy makers, media and lay public in an effort to support Go Red educational messages. Our proposed Center Director, Lori Mosca MD, PhD, MPH, was a pioneer of Go Red and has extensive scientific, leadership and media experience. Anne Taylor MD, Training Director, has a long-standing record of supporting the professional development of multidisciplinary investigators. Principal Investigators include:

Population Science: Brooke Aggarwal, EdD "Sleep and cardiometabolic risk in different life stages in a diverse population of women."

Clinical Science: Marie-Pierre St-Onge, PhD "Impact of sleep restriction on cardiometabolic risk factors in pre- vs post-menopausal women."

Basic Science: Sanja Jelic, MD "The effects of sleep restriction on endothelial activation and inflammation in pre- and post-menopausal women."

The significance of this collective research is to advance knowledge of the role of sleep and CVD risk among women at different life stages by contributing to the evidence-base needed to elevate poor sleep to the status of other modifiable risk factors for CVD, and to inform lifestyle interventions aimed to prevent CVD among women at risk.