

## The Department of Nutritional Sciences Fall 2020 Seminar Series

"Role of Diet on Exercise Mediated Metabolic and Vascular Adaptation in Obesity"

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## Wednesday, October 28, 2020 2:15 PM

**Zoom** Meeting ID: 919 2677 6019 Password: 179204 <u>JOIN MEETING</u>

Insulin resistance is a key component in obesity-related type 2 diabetes. Increased physical activity is widely recommended to reduce body weight and lower type 2 diabetes incidence. However, the ideal nutrition program (e.g. low calorie, low glycemic index or whole-grain) to be combined with exercise is unclear with regard to influencing insulin action. The potential for these lifestyle therapies to interact on glucose metabolism warrants attention in effort to implement innovative strategies that optimize cardiometabolic health. Further, recent work has placed adipose tissue at the "cross-road" between skeletal muscle, liver, vasculature and pancreatic glucose homeostasis through inflammatory cvtokine mechanisms. Interestingly, bariatric surgery induces both long-term weight loss and glycemic control. However, like reports from lifestyle studies, nearly 50% of people may not achieve type 2 diabetes remission following bariatric surgery. This attenuated glucose benefit appears linked to adipose derived inflammation. Whether pre-operative diet and/or exercise treatment can enhance improve bariatric surgery outcomes and responses warrants investigation. This talk will discuss how exercise can be tailored with nutritional strategies to improve management of obesity, type 2 diabetes and cardiovascular disease risk.



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