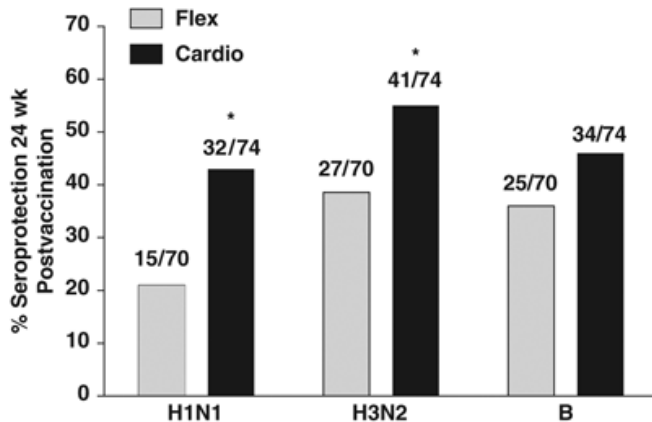


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The broad goal of my research program is to generate public health messaging and an understanding of the effects of exercise and dietary supplementation on immune function, the gut microbiota and susceptibility to disease.



Cardiovascular, but not flexibility, exercise intervention increased the percentage of older adults who achieved seroprotection 24 weeks after influenza vaccination. *Significant treatment difference ($P < .05$). Woods et al J Am Geriatr Soc, 2009.

Keywords

Exercise, immune system, immunity, inflammation, vaccination, microbiome, dietary supplementation, dietary fiber, aging, cognition

Research Interests

- Effects of exercise on the gut microbiome and metabolome
- Effects of exercise on natural and vaccination-induced vaccination responses, especially in older adults
- Effects of exercise and dietary supplementation including fiber on inflammation, cognition, and gut physiology

Past Projects

- First to show independent exercise-induced changes in the gut microbiome in people (Allen et al, *Med Sci Spt Exerc*, 2018)
- First to show exercise-training induced improvements in antibody response to primary immunogen (Grant et al, *Brain Behav Immun*, 2008)
- Demonstrated the exercise-training improved antibody resilience in response to influenza vaccination in older adults (Woods et al, *J Am Geriatr Soc*, 2009)
- Demonstrated anti-inflammatory effect of exercise training on adipose tissue (Vieira et al, *Am J Physiol Endocrinol Metab*, 2009)
- Demonstrated that soluble fiber reduces inflammatory microglia in the brain (Caetano-Silva et al, *Sci Reports*, 2023)

Interest Areas for Collaboration/Future Work

Exercise physiology, nutrition, aging, immunity, gut microbiome