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Meet Moringa: A Super Food for Metabolic Resilience

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Moringa (*Moringa oleifera* Lam.) is an edible plant used as superfood and medicine throughout the tropics. A moringa concentrate (MC) was made by extracting fresh leaves with water utilized naturally occurring myrosinase to convert the glucosinolates into chemically stable moringa isothiocyanates (MICS). MC and MICs significantly decreased inflammatory markers and glucose production in vitro. MC, supplemented in the diet at 5%, significantly reduced pathologies of metabolic syndrome in diet-induced obese C57 mice; MC-fed mice exhibited reduced weight gain and lower levels of insulin, leptin, inflammatory markers, liver damage, and cholesterol. Our results suggest a potential for stable and concentrated moringa isothiocyanates, delivered in MC as a nutritious food-grade product, to alleviate low-grade inflammation associated with chronic diseases and malnutrition. Future studies will evaluate the nutrient and MIC content of moringa varieties present in Kenya and mechanistic studies to understand the role of MC and MIC in diabetes and obesity prevention.

Biography:

Dr. Carrie Waterman is an interdisciplinary research scientist at the intersection of nutrition, agriculture, health and development. She received her PhD in Pharmacognosy and spent the following years as a post doc in Natural Products Chemistry. She was a Fulbright Scholar at the University of Nairobi, Kenya and served as a Peace Corps volunteer in West Africa. She is currently a Professional Research Assistant in Nutrition at UC Davis with a NIH Fogarty International K01 grant. She is working with in Kenya on moringa, a plant used to treat malnutrition and prevent chronic diseases including diabetes and obesity.