

## Food Science and Technology Departmental Seminar

September 19th, 2024  
Seminar: FIC 277 12:00 PM  
Reception to follow in FIC 275

# Microbiome Maestro: A Dietary Approach to Harmonizing Health in Multiple Sclerosis



## Ashutosh Mangalam, PhD

Associate Professor  
The University of Iowa  
<https://mangalam.lab.uiowa.edu/>

### Seminar Abstract

The Mangalam Lab is dedicated to unraveling the complex interactions between the microbiome and the human host, affecting various aspects of human health, particularly focusing on diet and immune system function in the setting of autoimmunity and cancer. I will discuss our work on understanding how the trillions of microorganisms living in and on our bodies influence our overall well-being, with the ultimate goal of using this knowledge to develop microbiome-based therapies and interventions that improve human health.

### Speaker Biography

The Mangalam Lab focuses on understanding the interplay between genetics, environment, and the development of autoimmune diseases, cancer, and obesity. With a background in immunology and MS, they specialize in host-microbe interactions, neuroimmunology, and immunogenetics. Previous research has centered on the role of gut microbiota in regulating host physiology, particularly the immune system. Our group was among the first to identify gut dysbiosis in MS patients and demonstrated the importance of phytoestrogen-metabolizing bacteria in disease severity. Their studies have shown that phytoestrogen-rich diets can protect against autoimmune diseases by influencing gut microbiota composition and modulating bacterial pro-inflammatory capabilities. These findings highlight the Mangalam Lab's ability to lead research projects investigating the impact of diet, gut microbiota, and the immune system on disease pathogenesis.

Meeting URL: <https://unl.zoom.us/j/93413358774?from=addon>

Meeting ID: 934 1335 8774

Upcoming Seminars: <https://foodscience.unl.edu/food-science-and-technology-seminar-series/>