

Department Seminar Series

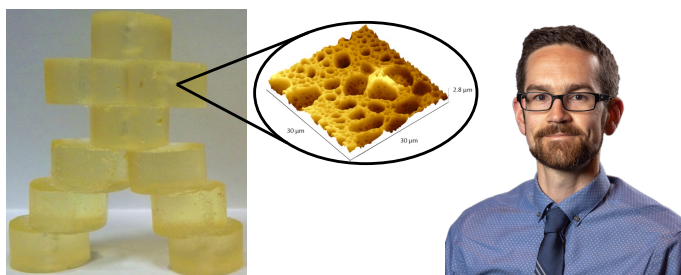
UCDAVIS
**FOOD SCIENCE AND
TECHNOLOGY**

4:10 PM, Wednesday Oct 6, 2021

FST290 students meet in person in Room 1207 RMI-South

Others may attend remotely by Zoom:

<https://ucdavis.zoom.us/j/92208083430>



Characterizing structure/function
relationships in foods for tailored
performance

Andrew Gravelle, Ph.D.

Assistant Professor
Food Science and Technology, UC Davis

Dr. Gravelle received his M.S. in Biophysics and Ph.D. in Food Science from the University of Guelph, Canada. He also held an appointment as a Research Associate in the Food Science Department at Guelph for several years. His research focuses on characterizing the relationship between food structure and mechanical/textural attributes using physical chemistry and materials science approaches.

SUMMARY: The central themes of my research are to develop strategies for imparting structure in foods and understand how composition and molecular architecture contributes to the macroscopic behavior of multi-component systems. This talk will provide an overview of two main initiatives: *i)* Identifying and characterizing edible oil gelator systems which can mimic the properties of fats, and *ii)* developing a mechanistic understanding of how emulsion droplets influence the mechanical attributes of fat-filled protein gels.



Next generation strategies for next
generation probiotics:

Milk-based tools to make probiotics
more effective

David Mills, Ph.D.

Professor
Food Science and Technology
Viticulture and Enology
UC Davis

Dr. Mills received his M.S. and Ph.D. from the University of Minnesota in Biochemistry and Microbiology. After postdoctoral research at North Carolina State University, he joined UC Davis in 1998. His research focuses on the molecular biology and ecology of bacteria that play an active role in gut health.

SUMMARY: Human milk both delivers and guides the development of the infant gut microbiome—a critical “organ” in the development of neonates. Milk performs this operation through a multitude of mechanisms which promote high level colonization by co-evolved bifidobacterial strains. Examining these mechanisms reveals unique opportunities to enhance efficacy of current probiotics or novel live bacterial therapeutics—with rather immediate applications in the functional food and pharmaceutical industries.