Department Seminar Series



Exit Seminar:

Sources and Strategies for Improving the Isolation of Oligosaccharides from Milk and Dairy Streams



Sierra Durham

PhD Candidate, Barile Lab Wednesday, April 6, 2022 at 4:10 PM PST Room 1207 Robert Mondavi Institute-South

Or attend remotely by Zoom URL: https://ucdavis.zoom.us/j/98032142511

BIO: Sierra obtained her B.S. in Chemistry from California Polytechnic State University, San Luis Obispo in 2017. Shortly thereafter she joined Dr. Daniela Barile's lab in the Food Science Graduate Group at UC Davis. During her PhD, Sierra has worked in collaboration with both the USDA and a variety of companies in the dairy sector to uncover more information about the bioactive compounds in milk and other dairy streams. In addition, Sierra interned in the Research Applications department at E & J Gallo Winery in 2021, working on grape aroma and wine mouthfeel analyses. Once she completes her time at UC Davis, Sierra plans to continue applying her analytical chemistry skills in the food industry.

SUMMARY: Milk oligosaccharides are a class of carbohydrate compounds found in milk and other dairy products that have a wide range of demonstrated consumer benefits, particularly for infants. Milk oligosaccharides are the third most abundant component of human breast milk, with over 150 identified oligosaccharide structures, but milk oligosaccharides are only present in extremely low concentrations or absent entirely in infant formulas. This talk will explore several potential natural sources for this diverse array of compounds and discuss strategies for more effectively isolating them, with the ultimate aim of creating a milk oligosaccharide supplement for infant formula and other nutraceutical applications.