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Food-borne Bacteria Detection; Food-derived Carbohydrates;
Antioxidant Activity; Bacteria Engineering; Lipid-lowering Capacity

Our research focuses on three interconnected areas at the interface of food science, microbiology, and carbohydrate chemistry. We developed strategies for the detection of food-borne bacteria with the aim of enabling rapid and reliable bacterial monitoring and thereby improve food safety. In addition, we investigate food-related bacterial engineering to explore their functional roles and practical applications in food systems. We also study food-derived carbohydrates and their bioactivities, particularly their antioxidant properties and lipid-lowering potential, to support the development of functional food ingredients and health-promoting materials.

Potential Areas for Collaboration

- We welcome collaborations in food science, carbohydrate chemistry, and microbiology. We are interested in partnerships that combine fundamental research with practical applications in food, health, and biotechnology.
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