

POLYU Junior Researcher Mentoring Programme 2024



Code:	JRMP2024_21
School / Department:	Department of Applied Biology and Chemical Technology
Name of Research Team Member(s):	Dr Chua Song-lin, Assistant Professor
Research Topic:	Assessing microbial contamination in food products and associated packaging
Short Description of the Research Project:	<p>Pathogens and spoilage microbes can attach and colonise surfaces on food and its associated packaging/processing tools, thus influencing the shelf life and safety of food. This is especially a concern for raw foods, such as fruits and salad ingredients, which are consumed without cooking with heat. With the increasing popularity of raw foods, such as sushi and salads, among the younger generations here in Hong Kong, it is crucial to monitor and assess microbial contamination of such foods and their associated packaging/processing tools.</p> <p>Furthermore, processing tools such as knives and utensils and packaging such as plastic boxes in kitchens, food industries and for personal use may play a role in the transfer and dissemination of microbes across foods. Foodborne pathogens may form biofilms, which are multicellular aggregates of microorganisms embedded in their self-produced exopolymeric matrix attached on any surface, with implications for food contamination and infections.</p> <p>This project aims to evaluate microbial contamination in raw foods and associated packaging and understand how microbes can disseminate across foods and packaging. Achieving these outcomes will provide insights into microbial contamination across foods and associated packaging, enabling the development of antimicrobial surfaces to reduce food contamination.</p>
No. of Places Offered:	2
Frequency of Meetings:	Monthly
Special Requirement(s):	It is preferable for the participating students to have taken Biology.

* The information presented above is subject to change.