Welcome

Foodborne Viruses - Introduction, Gaps and Challenges

Alvin Lee
Illinois Institute of Technology, US

Foodborne viruses are recognized food safety risk in the food industry and over the last decade, a number of significant foodborne outbreaks have been attributed to foodborne viruses. Viruses enter the food supply across the farm-to-fork chain by exposure to contaminated waters, surfaces, and/or human hands. Unlike bacterial pathogens, for which there are widely used validated detection technologies, virus detection and control methods are less well developed. Many laboratories are attempting to both improve and use detection and control technologies to better understand the transmission and control of viruses in the food chain. The purpose of this webinar is to discuss the work of an ILSI expert panel that evaluated and contrasted virus detection and control strategies, and how these strategies can be used to address real-world issues for the food industry. The webinar highlights the risk assessment information compiled by panel and the suitability and effectiveness of various control strategies to mitigate or manage the risk of viruses in at risk foods. The critical discussion generated between panellists and the participants on the technologies developed for virus detection and control will help pave the way for the implementation of control strategies and also identify potential needs or guidance development for the industry.

Biography

Prof. Alvin Lee is a microbiologist and virologist with more than 15 years research experience with a doctorate from the Royal Melbourne Institute of Technology in Australia. He currently leads IFSH Center for Processing Innovation and co-leads the joint IFSH/FDA Microbiology Research Platform on food safety and defence related projects. He is a member of the Executive Board of NoroCORE, a USDA-NIFA Food Virology Collaborative based at North Carolina State University, US, and leads the Prevention and Control CORE. Current research support includes funding from USDA, US FDA and various industry contracts that evaluate and validate preventive controls for bacterial and viral pathogens. His research on various food processing technologies include high pressure processing, pulsed light, high powered ultrasound, gaseous technology and legacy thermal technologies. Prof. Lee is a scientific reviewer on a number of scientific journals and publications and a Lead Instructor for Food Safety Preventive Controls for Human Foods. He teaches food microbiology in the IIT’s Masters of Science program, has mentored more than 30 graduate students and post-doctoral fellows. He is a current active member of the International Association for Food Protection and a Professional Member of the Institute of Food Technologists.