Organized Session 4

**CIGR-WG 6 (Food Safety)**

**Application of Effective Food Safety Management Systems**

**to Promote Better Health and Sustainable Global Food Trade**

**Anthony N Mutukumira1\*, Svetoslav Dimitrov Todorov2**

1 School of Food and Advanced Technology, Massey University, Auckland Campus, NSMC 0745 New Zealand

2 ProBacLab, Dept of Advanced Convergence, Handong Global University, Pohang, Gyeongbuk 37554, Korea

\* Corresponding organizer. Email: a.n.mutukumira@massey.ac.nz

Concept of Organized Session

The illnesses associated with foodborne pathogens are probably the most contagious health problems in the modern era, that impact negatively on economic development. The increasing incidences of foodborne illnesses affect a significant proportion of the world population, including countries with developed economies. Pandemics of emerging foodborne pathogens such as *Escherichia coli* O157:H7 and *Campylobacter jejuni* have claimed human lives. New food-related hazards that affect human health are continuously in the public media indicating significance of food-borne pathogens. Therefore, the application of effective food safety management systems is essential for consumer health and nutrition. In addition to consumer protection, effective and efficient food controls can stimulate global food trade, thereby creating employment opportunities, increasing incomes, and improving well-being. As food trade expands globally, food safety cannot remain confined to the boundaries of individual countries or regions. Different strategies for bio-preservation, application of natural antimicrobials and beneficial microorganisms can increase food safety.

**Keywords:** Food safety; bio-preservation; risk analysis; traceability; emerging pathogens; food spoilage.