Perceptions from food safety to food defense in a developing world

The global food system became extremely vulnerable in the 21st century. Food having, social, cultural and nourishment aspects is produced in bulk amounts and needs rapid production, sourcing and distribution at both national and international level that is beyond the limits of routine food safety measures. Traditional food safety practices lack the capability of recovering/preventing from intentional threats and securing our food for accessing to sufficient calories. The intentional contamination of food supply poses a real threat to society. It has the potential to disrupt food distribution, loss of consumer confidence in government and the food supply. It is still unconventional and occurs asymmetrically. The overlaps and differences between safety and defense have to be clarified through a total food protection, perspective by breakdown of food safety management systems and especially vulnerability assessment. Food security, safety, defense, protection and quality should all be linked within a food continuum by determining the counter measures to eliminate or at least minimize the vulnerabilities as well as enhancing the capability for surveillance, preparedness and response to pre-determined intentional contamination for greater awareness and prevention. Intentional adulteration, possible motivations, terrorism, industrial sabotage and economically motivated adulteration are all new concepts that will be detailed. Finally, possible food defense mitigation strategies and tools will be summarized through public-private partnership alternatives for preparedness and international outreach.

Biography

Hami Alpas was a Visiting Scholar in 1996 and 1998 at University of Wyoming, USA; Visiting Scientist in 2001 and 2002 at Ohio State University, USA and; Visiting Professor in 2006, 2007 and 2008 at University of Bordeaux I, France. His main research areas are: Unit Operations in Food Engineering, Non-thermal Food Processing Technologies, Food Quality, Food Safety and Food Defense. He is an expert in Food Defense training activities via NCFPD (USA). He has supervised five PhD and 12 MSc theses. He has 76 international journal articles (SCI) and over 1000 citations as well as close to 60 academic presentations in 40 different international meetings. He has completed 15 national, four international projects including EU/JRC, CNRS-EGIDE and NATO ARW/ATC, EU-FP7 projects. He has authored 12 chapters in internationally edited books and has edited three international books by Springer.

imah@metu.edu.tr