

Fri. Sep 6, 2019

Hall A

Keynote Lecture | Food Function/Nutrition

**[6-0900-A] Keynote Lecture 6th**

Chair: Rosires Deliza (Embrapa Food Technology, Brazil)

9:00 AM - 10:15 AM Hall A (Main Hall)

**[6-0900-A-01] An Integrative R&D Approach for  
Addressing Ever-Increasing Consumer  
Demands for Food Nutrition and Safety**

\*Dongxiao Sun-Waterhouse<sup>1,2</sup> (1. South China

University of Technology (China), 2. The New

Zealand Institute of Food Science and

Technology, New Zealand (New Zealand))

9:00 AM - 9:30 AM

**[6-0900-A-02] Biosensing Platforms for DNA, Viruses,  
Food Toxicants and Environmental  
Contaminants**

\*Geoffrey Waterhouse<sup>1</sup> (1. The University of

Auckland (New Zealand))

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## **[6-0900-A-01] An Integrative R&D Approach for Addressing Ever-Increasing Consumer Demands for Food Nutrition and Safety**

\*Dongxiao Sun-Waterhouse<sup>1,2</sup> (1. South China University of Technology(China), 2. The New Zealand Institute of Food Science and Technology, New Zealand(New Zealand))

Keywords: Food nutrition, Food safety

The terms "nutrition &health" and "food quality &safety" are constantly evolving due to changes in food resource production and utilization, food preparation and handling preferences, human lifestyles and eating behaviors. Modern consumers expect technological advances to deliver personalized nutrition and convenient eating experiences, while simultaneously seeking functional/wellness foods to counteract psychological and physical stresses caused by fast-paced modern lifestyle and environmental influences. This speech examines the shift of the global food industry from high-speed development to high-quality development, and emphasizes the inseparability of food safety and food nutrition. This speech also demonstrates how to ensure food nutrition and safety while satisfying both physical and emotional needs of consumers during the development of wellness/functional foods.

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Keywords: Biosensing, DNA, Virus, Contaminant

Global concerns about food safety and human health motivate the development of new and improved technologies for the detection of food adulterants, point of care diagnostics (POCD) and disease treatment. This speech will overview some recent collaborative work involving the successful application of nanotechnology in these three areas. Through a series of case studies, the vast potential of nanotechnology in the food, biotechnology and health sectors will be demonstrated.