

## Course outline:

This is an intensive training workshop over two days on topics listed below. A more detailed course outline will be available at these websites (<http://www.lincoln.ac.nz/china-food-safetyworkshops2016>).

### Day 1—April 11, 2016:

9.00—9.15 NZ-China Science Relationship (Mr Al Ross, Counsellor, Science & Innovation, NZ Embassy, Beijing)

9.15—9.45 Food safety & Security (Prof Charles Brennan, Assoc. Prof Ravi Gooneratne, Prof Xiyang Wu)

9.45-10.45 Gut bacteria & human health (Dr Xue-Song Zhang), Toxin/Antitoxin system in E.coli (Prof Xiaoxue Wang), Microbial Risk Assessment (Dr Malik Hussain),

### 10.50—11.15 Morning Tea

11.15—12.15 Pesticide Residues (Prof Nimal Pathiraja), Food Adulterants (Prof William Riley), Climate Change, Mycotoxins & Food Safety (Assoc. Prof Ravi Gooneratne)

12.15—12.45 NZ Case Study: Food safety within dairy industry (Prof Charles Brennan)

### 12.45—1.45 Lunch

1.45—2.30 Zoonoses (Assoc. Prof Ravi Gooneratne), Antimicrobial Resistance in humans & animals (Dr Malik Hussain)

2.30 —3.10 Food Processing and maintaining safe foods for consumers (Prof Zeng Xin-An & Prof Shuze Tang)

3.10 —3.40 Meat processing and safe foods (Dr Al-Eldin Bekhit):

3.40—4.10 Afternoon Tea

- 4.10 – 4.40 Strategies for contaminant detection (Dr David Stirling)
- 4.40—4.50 NZ– Guanzhou Relationships (Ms Rebecca Needham, NZ Consulate General, Guangzhou )
- 4.50 – 5.00 SIGNING: Setting up a Joint Food Safety Laboratory between Lincoln University and Jinan University**
- 5.00 – 5.30 Panel Discussion - New Zealand and Chinese scientists with audience participation

### Day 2—April 12, 2016:

#### HALF-DAY FIELD TRIP: Visit a Food Company

(Professor Xiyang Wu )

**Learning Material:** Reading lists, reprints and notes will be provided to the participants on day 1 of the course.

### Lincoln University - Food Science programs

Include a 3-year BSc, 1-year MSc (Food Innovation) by course work, and research-based MSc and PhD programs. These are conducted by world-leading academics and covers many aspects including food composition, processing, engineering, microbiology, biochemistry, nutrition, toxicology, food safety & security, sensory evaluation and consumer focused product innovation. Guest speakers from the industry, together with problem based active learning tasks, ensure students have hands-on engagement with potential employers from the very beginning of their studies. The University's Centre for Food Research and Innovation contributes research-informed teaching and world-leading expertise to both undergraduate and postgraduate learning.

**Academic coordinators:** BSc: Dr Sue Mason

MSc: Assoc. Prof. Ravi Gooneratne

### China:

**Professor Xiyang Wu** BSc, MSc, PhD. Head, Department of Food Science & Engineering, Jinan University, Guangzhou, China.

**Professor Shuze Tang** BAgronomy, MBiochem., PhD. Professor of Food Science, Jinan University, Guangzhou, China.

**Professor Nimal Pathiraja** BVSc, PhD, DVPH, MRCVS. Professor of Food Safety, International School, Jinan University.

**Professor William Riley** BSc, MSc, PhD. Professor of Food Quality & Safety, International School, Jinan University.

**Professor Xiaoxue Wang** BE, PhD, Advisor, Chinese Academy of Sciences

**Professor Zeng Xin-An** BSc, MSc, PhD, Dean, College of Food Science, South China University of Technology

**Dr Xue-Song Zhang** BSc, PhD. Assistant Professor, New York University School of Medicine.

### Presenters:

#### New Zealand:

**Associate Professor Ravi Gooneratne** BVSc, PGDip.Tox., PhD, FRCPATH Associate Professor in Toxicology, Lincoln University.

**Professor Charles Brennan** BSc, PhD. Professor of Food Science, Lincoln University.

**Dr Al-Eldin Bekhit** BSc, MSc, PhD, Senior Lecturer in Food Science, Otago University.

**Dr David Stirling** BSc, MSc, PhD. Technical Manager, AsureQuality.

**Dr Malik Altaf Hussain** BSc, MSc, PhD. Senior Science and Technical Officer, NSW Food Authority, Australia & Honorary Lecturer, Lincoln University.

## Microbiological, Food Residues and Food Contaminants: Emerging Challenges to Global Food Security

# Food Safety & Security

## Two-day Workshop

Microbiological, Food Residues and Food Contaminants: Emerging Challenges to the Food Industry

**11 – 12 April 2016**

Jinan University, Guangzhou, China

**Organisers:** Lincoln University, Lincoln, New Zealand & Jinan University, Guangzhou, China

### Supporting organisations:

Otago University, Dunedin, New Zealand, AsureQuality Ltd, New Zealand

**Funding:** Ministry of Business, Innovation and Employment, New Zealand, funded under **New Zealand – China Food Safety and Security Roadmap.**



## Registration Form

**Food Safety & Security Workshop, 11—12 April 2016.** Professional Development Group, Jinan University, China.

Family Name	
First Name	
Organisation	
Postal Address	
Phone	
Fax	
Email	

I will be attending the workshop <input type="checkbox"/>	¥	
I require accommodation <input type="checkbox"/> ¥? p/night	¥	
Arrival date:	Departure date:	
TOTAL		¥

- I enclose a cheque (payable to Jinan University)  
 Please invoice organization above  
 Please charge my credit card (complete details)  
 Visa       MasterCard

Cardholder's name	
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Card Number																				
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Expiry Date	
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Signed		Date	
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- I cannot attend but would like details of future courses

## Introduction:

The challenges for food science researchers are broad in scope and scale and include multiple issues such as productivity, environment, biodiversity, food chain, food safety, food security, human nutrition, human health, climate change and socio-economics. We have identified food toxicology, role of microbes in food spoilage, zoonoses, role of food processing techniques, antimicrobial resistance, pesticides residues, food adulterants, mycotoxins and climate change as the critical emerging challenges to global food safety and security. These topics will be the focus of the workshop. This will be followed by a panel discussion by both Lincoln University (New Zealand) and Jinan University (China) partners to address issues that would be of interest to the food industry and government in both countries.

## Who should attend:

This 2-day workshop would be of interest to those with training in food science, food technology, food toxicology, agricultural science, animal science, plant science, physiology, biochemistry, veterinary science and other disciplines, who have had little training in food safety and security but now have to deal with these global problems in their employment and / or wish to develop an understanding in food safety and security issues. It would also be of interest to those with training in food safety but require updates in the discipline. The workshop would be particularly useful to those individuals from a range of disciplines working in the food sector, agriculture, public health and occupational health sectors, government agencies and regional/ local governments.

## Registration Details:

The registration fee includes course notes, 4 lecture-discussion sessions, morning and afternoon tea, and lunches. Enrolment will be on a first come first served basis. Places are confirmed on receipt of payment. The short course starts at 9.00am on 11 April and finishes at 12pm on 12 April. For further details, contact the Jinan University short course programme coordinators Professor Xiyang Wu (tkentwu@jnu.edu.cn).

## Objectives:

At the completion of the short course, the attendees will be able to:

- Understand the fundamentals and principals of food safety and food security issues in China and New Zealand.
- Mechanisms by which microbes cause food poisonings.
- Apply toxicological principles to the study of microbes and undesirable chemicals in foods, and antimicrobial resistance in humans & animals .
- Have an appreciation of the current food safety and security issues and the importance of laboratory analytical data in determining the extent of toxicity of foods.
- Appreciate short and long-term effects of food poisonings.
- Gain an insight into zoonoses. (diseases transmitted from animals to humans; example—bird flu).
- Understand the concepts and the importance of Hazard Analysis and Critical Control Point (HACCP).
- To examine how data from the laboratory and field studies and model systems may be extrapolated to understand microbial risk assessment.
- Gain information about a variety of health effects caused by pesticide residues, food adulterants, & mycotoxins. selected chemical hazards (lead and cadmium) on humans.
- Assess the role of food processing techniques and quantify risk to humans (risk assessment) on food safety.
- Become familiar with the environment and impact of climate change on food safety and security.

## Enquiries to:

For further details, contact the short course programme coordinators Professor Xiyang Wu (tkentwu@jnu.edu.cn) , China, or Associate Professor Ravi Gooneratne (New Zealand). (Ravi.Gooneratne@lincoln.ac.nz).

