

**BOKU**  
**University of Natural Resources and Applied**  
**Life Sciences**  
Vienna 2012

*Reference Materials  
and Method Validation  
in Food Safety Assurance*

*Dr. Roland Ernest Poms*

*Cordinator of MoniQA, [www.moniqua.org](http://www.moniqua.org)  
ICC Secretary General/CEO, [www.icc.or.at](http://www.icc.or.at)  
Vienna, Austria*



Universität für Bodenkultur Wien  
Department für Lebensmittelwissen-  
schaften und Lebensmitteltechnologie



ICC-International Association  
for Cereal Science and Technology

**MoniQA**

International Association:  
Monitoring and Quality Assurance  
in the Total Food Supply Chain

# Introduction: Dr. Roland Ernest Poms



Nationality: **Austria**

Education: **MSc** Food Technology and Biotechnology, BOKU, Vienna, Austria, and University of Minnesota, St. Paul, USA  
**PhD**, Food Technology and Biotechnology, BOKU, Vienna, Austria

**Post Doc** in Food Safety, JRC, European Commission, Ispra, Italy

**Prof.**, Honorary Professor in Food Safety Assessment, BOKU, Vienna, Austria

Areas: **Food Microbiology**  
**GMOs and Molecular Biology**  
**Food Allergens and Immunochemistry**  
**Cereal Science and Technology**

# Aim of the Workshop/Lecture

The aim of the lecture/workshop on „Reference materials and method validation in food safety assurance” is to describe the problems and challenges involved in the international comparability and validity of analytical results in the **assurance of food safety and quality**. On the basis of practical examples the focus will be on current hot topics, such as **mycotoxins, food allergens, pathogenic micro-organisms, GMOs, etc.**, the analytical possibilities (including rapid methods), and the corresponding regulations. Additionally, an overview of international standardization bodies and examples of **international validation studies** will be given.

# Content of the Workshop/Lecture (1)



- Introduction
- Current hot topics in food safety in the EU and globally – legal and economical background
- Trend towards rapid methods – involved challenges
- Test kits and other emerging analytical technologies
  - ELISA
  - Dipstick Assay/Lateral Flow Device (LFD)
  - Fluorescence Polarisation
  - Biosensors/Lab on a chip
  - PCR + gel electrophoresis
  - PCR-ELISA
  - Real-Time PCR

# Content of the Workshop/Lecture (2)

- Global trade and the need for validated methods
- Need for reference methods and reference materials
- International Standards and Standardisation/Validation Bodies
- Case studies
  - ISO/AOAC/IUPAC harmonised protocol
  - validation study of peanut allergen ELISA
  - validation study of mycotoxin reference method
- Other international efforts
  - EU projects in the food safety area
  - CEN working groups
  - IAM (Inter Agency Meeting)



# Organisation (1)

- Lectures will be blocked (27 February - 9 March 2012)
- Power Point Presentations plus some demonstration material
- Powerpoints are available at BOKUonline.
- Printed booklets can be purchased for € 12.-
- Excursion and invited speakers from industry and research
  - BioPure
  - RomerLabs
  - IFA Tulln
  - Quantas
- 3 ECTS from BOKU for registered students after an oral exam after completion of the lectures

# Organisation (2)



Muthgasse 18, A-1190 Vienna

BOKU – University of Natural Resources and Applied Life Sciences Vienna

## • Dates:

27 February 2012 (Monday)	14:00-17:00	Lectures on Food Safety
28 February 2012 (Tuesday)	14:00-17:00	Lectures on Food Safety Methods
29 February 2012 (Wednesday)	14:00-17:00	Excursion: IFA-Tulln, Christian Doppler Laboratory, Romer Labs, Biopure, Quantas
01 March 2012 (Thursday)	14:00-17:00	Lectures on Method Validation
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08 March 2010 (Thursday)	14:00-17:00	Lectures on Reference Materials
09 March 2010 (Friday)	14:00-17:00	Practical Method Validation and Summary

In cooperation with MoniQA Association



# Monitoring and **MoniQA** Quality Assurance

**Monitoring and Quality Assurance in the Food Supply Chain**

**“Working for safer foods by harmonising worldwide food quality and safety monitoring and control strategies.”**

**Contract N0. FOOD-CT-2006-36337**

**MoniQA**

[www.moniqa.org](http://www.moniqa.org)



SIXTH FRAMEWORK PROGRAMME





# MoniQA

## Network of Excellence



Funded by the European Commission  
within the Sixth Framework Programme (FP6)  
Topic T5.4.5.1: Quality and safety control strategies for food (NOE)

### **Coordinator:**

Roland Ernest Poms, ICC – International Association for  
Cereal Science and Technology, Vienna, Austria

**33 member institutions** from 20 countries / 4 continents  
**Currently >100 registered institutions from >35  
countries**

A total of **155 researchers** including 40 doctoral students  
**Currently approx. 400 registered staff**

Duration: **5 years** – starting 1 February 2007  
EU funding: **12.3 M €**



[www.moniqua.org](http://www.moniqua.org)

# MoniQA Association



## MoniQA Global Food Safety Network

*...providing expertise and services for effective food safety management..*

*...for food manufacturers, food retailers, international trade, food analytical laboratories, food control and regulatory bodies*

- Non profit-distributing association
- Established in July 2011
- Membership based
- Secretariat at ICC HQ in Vienna, Austria

Research

Industry

Consumers

Policy  
Makers

# Organisation (3)

	BOKU				26.03.2007
<b>Reference Materials and Method Validation in Food Safety Assurance</b>					
Dr. Roland Ernest Poms					
No	Name	First name	Course	Semester	Email address
1					
2					
3					
4					
5					
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10					



MoniQA

# Any questions?

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