Reference Materials and Method Validation in Food Safety Assurance

Dr. Roland Ernest Poms

Cordinator of MoniQA, www.moniqa.org
ICC Secretary General/CEO, www.icc.or.at
Vienna, Austria
**Introduction: Dr. Roland Ernest Poms**

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<th>Nationality:</th>
<th>Austria</th>
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<tr>
<td>Education:</td>
<td>MSc Food Technology and Biotechnology, BOKU, Vienna, Austria, and University of Minnesota, St. Paul, USA</td>
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<td>PhD, Food Technology and Biotechnology, BOKU, Vienna, Austria</td>
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<td>Post Doc in Food Safety, JRC, European Commission, Ispra, Italy</td>
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<td>Prof., Honorary Professor in Food Safety Assessment, BOKU, Vienna, Austria</td>
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<td>Food Allergens and Immunochemistry</td>
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<td>Cereal Science and Technology</td>
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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

• From risk assessment to risk management – the European example

• Trend towards rapid methods – involved challenges

• Test kits and other “rapid” 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

• Requirements for reference methods and reference materials

• Validation of analytical methods and required parameters

• International Standards and Standardisation/Validation Bodies

• Case studies - ISO/AOAC/IUPAC harmonised protocol
  - validation study of peanut allergen ELISA
  - production of reference materials for food allergen analysis

• Other international efforts - EU projects in the food safety area
  - CEN working groups
  - IAM (Inter Agency Meeting)
Organisation (1)

• Lectures will be blocked (25-29 November 2013)

• Power Point Presentations plus some demonstration material

• Powerpoints are available at BOKUonline.

• Printed booklets can be purchased for € 15.-

• 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)

Location:
BOKU – University of Natural Resources and Applied Life Sciences Vienna
Department of Food Science and Technology, Muthgasse 18, A-1190 Vienna

Dates:

25 November 2013 (Monday) 13:30-17:00  Food safety in a global context

26 November 2013 (Tuesday) 13:30-17:00  Analytical challenges in food safety

27 November 2013 (Wednesday) 13:30-17:00  Excursion: IFA-Tulln, Christian Doppler Laboratory, Romer Labs, Biopure, Quantas

28 November 2013 (Thursday) 13:30-17:00  Towards reference materials for food allergens, method validation criteria

29 November 2013 (Friday) 13:30-17:00  Terms and definitions, AOAC harmonized protocol
**Excursion:**
IFA-Tulln, Center for Analytical Chemistry, Department for Agrobiotechnology, Konrad Lorenz Strasse 20, A-3430 Tulln, Austria

14:00 -14:30  Antibody development - Sabine Baumgartner

14:30 -15:00  Food Allergens and analytical methods - Elisabeth Halbmayr-Jech and Lukas Frank

15:00 -15:30  Mycotoxins and GMOs - analytical methods (PCR, LFD, HPLC, LCMSMS) - Vera Traar

15:30 - 16:00  Reference Materials - Georg Häubl

16:00-17:00  Visit to the laboratories and demonstration of test kits
In cooperation with MoniQA Association

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 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
## Organisation (3)

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BOKU  

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26.03.2007
Any questions?

www.icc.or.at
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Roland.poms@icc.or.at