GFORSS Global Food Regulatory Science Society

IUFoST

Université Laval | Faculty of Agriculture and Food Sciences

ILMERAC International Liaison Group on Methods for Risk Assessment of Chemicals in Food and Feed

TRAINING ON

PROBABILISTIC RISK ASSESSMENT

FOR CHEMICALS IN FOOD

NOVEMBER 16th, 2025

09:00 – 17:00 • Abu Dhabi Hall B – Dubai World Trade Center - UAE

Introduction

The Training on **Probabilistic Risk Assessment (PRA) for Chemicals in Food** is organized on the margins of the **19th Dubai International Food Safety Conference 2025** to introduce participants to the principles, tools, and applications of probabilistic approaches in food-chemical risk assessment.

Probabilistic methods are increasingly used by risk assessors and regulators worldwide to better characterize variability in foodborne chemical exposure and to support more transparent, science-based food regulatory decision-making.

This training aims to build foundational understanding of these methods and to provide participants with a hands-on introduction to the use of the iRisk platform for practical application.

The event is jointly organized by the Global Food Regulatory Science Society (GFoRSS), the World Health Organization (WHO), and the German Federal Institute for Risk Assessment (BfR), in collaboration with ILMERAC — the International Liaison Group on Methods of Risk Assessment of Chemicals in Food and Feed.

Objectives

- To familiarize participants with the concepts, rationale, and value of probabilistic risk assessment in food-chemical safety evaluation.
- To demonstrate how probabilistic models can complement deterministic approaches in exposure assessment and risk characterization.
- To provide practical experience in applying probabilistic methods using real-world case studies through the iRisk application.
- To promote international collaboration and alignment of methodologies under ILMERAC's ongoing workstreams.

Expected Training Outputs

- Clear understanding of Probabilistic Risk Assessment (PRA) concepts, applications, and regulatory relevance.
- Overview of BfR's applied probabilistic modelling practices.
- Familiarization with the iRisk system and its core features supporting PRA.
- Strengthened network among GFoRSS, WHO, BfR, and ILMERAC experts.

Program

Time	Topic
Session 1: Opening and Foundations	
09:00-09:15	**Opening and Welcome Remarks** **Objectives, agenda overview** * GFoRSS Leadership and Organizers
09:15-09:45	**Positioning Risk Assessment in Food Regulatory Decision-Making** *Ensuring risk-based, transparent, and proportionate decisions* * Samuel Godefroy (Université Laval / GFoRSS / IUFoST)
09:45-10:15	**Introduction to Key Concepts in Probabilistic Exposure and Risk Assessment** * Greg Paoli (Risk Sciences International / GFoRSS)
10:15-10:45	**The Future of Probabilistic Risk Assessment:** *Implications for food-chemical risk analysis* * Moez Sanaa (WHO)
10:45-11:00	**Health Break**
Session 2: Applying Probabilistic Methods in Practice	
11:00-11:30	**Technical Presentation: Applying Probabilistic Methods for Chemical Exposure Assessment** *Examples and modelling approaches from BfR experience* * Matthias Greiner (BfR)
11:30-12:00	**Demonstration of a Practical Example of Probabilistic Risk Assessment: Ochratoxin A in Bread** * Moez Sanaa (WHO)
12:00-12:30	**Discussion and Q&A :** When probabilistic methods add value ? * Moderated by Moez Sanaa (WHO)
12:30-13:30	**Lunch Break**

Program

Time	Topic
Session 3: Hands-On Case Study Using iRisk	
13:30-14:00	**Introduction to the FDA-iRisk Application** **Framework and key functionalities for probabilistic risk assessment – Demonstration and Introduction of the Case Study** *Setting up a scenario on FDA-iRisk* * Greg Paoli (RSI)
14:00-15:00	**Practical work on FDA-iRisk Application – (Pre-registration into FDA-iRisk)** *Building a probabilistic model, running simulations, and interpreting outputs* * Greg Paoli (RSI), supported by Umida Masharipova (Scientific Coordinator of ILMERAC)
15:00-15:30	**Presentation of Results** *Interpreting distributions, sensitivity analyses, and policy implications* * Co-moderated by Greg Paoli (RSI) / Moez Sanaa (WHO)
15:30-15:45	**Health Break**
Session 4: Interpreting and Communicating Results	
15:45-16:45	**Communicating PRA to Risk Managers and Stakeholders** *The transparency and utility trade-off: How probabilistic models can strengthen (or Stall) risk management decisions:* *Use of PRA in both hazard characterization and exposure assessment* Panel Moderators : Majlinda Lahaniatis (ILMERAC Co-Chairs) - Djien Liem (Honorary Member of ILMERAC) Panel: * Moez Sanaa (WHO) * Greg Paoli (RSI) * Mark Feeley, GFoRSS and Former Health Canada Deputy Director, Food Chemical Safety * Regulator from the GCC/Arab region
Session 5: Concluding Session and ILMERAC Perspective	
16:45-17:00	**Introduction to ILMERAC and the Future of Probabilistic Risk Assessment** *Linking training to ILMERAC working streams and collaborative opportunities* * Majlinda Lahaniatis(BfR/ILMERAC) and Samuel Godefroy (GFoRSS)

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