

14-16 OCTOBER 2019

wmf
MEETS
IUPAC

THE *World
Mycotoxin
Forum*[®]



LOOKING
BEYOND HORIZONS



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WELCOME

WMFmeetsIUPAC – the joint conference of the 11th Conference of The World Mycotoxin Forum® and the 15th IUPAC International Symposium on Mycotoxins – takes place in Belfast, Northern Ireland, 14-16 October 2019.

The aim of **WMFmeetsIUPAC** – the world's largest mycotoxin event – is to increase the awareness of human and animal health risks due to mycotoxin contamination. It offers a platform for the food and feed industry, science and regulatory authorities to exchange current knowledge, to promote harmonisation of food and feed safety regulations and control procedures, and to make recommendations for integrated strategies ensuring the safety and security of the food and feed supply chain.

'Looking beyond horizons' – the conference theme – alludes to both the finishing line of large-scale research programmes on mycotoxins and to the necessity to put more emphasis on countries where mycotoxins present a concern to human and animal health. 'Looking beyond horizons' requires us to consider the next steps for effective mycotoxin management along the food and feed chain.

WMFmeetsIUPAC offers an excellent way to network and to share ideas, providing a reference source for anyone involved in this field. The event will include:

- ✿ presentations and discussions in plenary meetings and parallel sessions
- ✿ poster sessions
- ✿ company pitches covering a wide range of topics
- ✿ workshops and demonstrations
- ✿ a concurrent exhibition providing information on equipment, products, and services.

High-quality speakers, ample time for discussions, and every opportunity to establish rewarding contacts are values **WMFmeetsIUPAC** wants to uphold. The General Conference Chairs – Prof. Dr Rudolf Krska and Prof. Dr Chris Elliott – and the members of the Steering Committee and the Advisory Committee are looking forward to meeting you in Belfast!

ABOUT THE WORLD MYCOTOXIN FORUM®

The World Mycotoxin Forum® is the leading international meeting series on mycotoxins where food and feed industry representatives meet with people from universities and governments from around the world. The main objectives of The World Mycotoxin Forum® are:

- ✿ to provide a unique platform for the food and feed industry, regulatory authorities and science
- ✿ to exchange information and experiences on the various aspects of mycotoxins
- ✿ to review current knowledge related to mycotoxins in food and feed
- ✿ to discuss strategies for prevention and control of mycotoxin contamination ensuring the safety and security of the food and feed supply, and protecting human and animal health
- ✿ to promote solutions for the control of mycotoxin contamination along conventional and organic supply chains.

ABOUT IUPAC

The International Union of Pure and Applied Chemistry (IUPAC) serves to advance the worldwide aspects of the chemical sciences and contribute to the application of chemistry in the service of humankind. As a scientific, international, non-governmental and objective body, IUPAC can address many global issues involving the chemical sciences. In 2019, IUPAC celebrates its 100th anniversary.

GENERAL CONFERENCE CHAIRS

- ☼ Prof. Rudolf Krska Department IFA-Tulln, BOKU Vienna, Austria
- ☼ Prof. Chris Elliott The Institute for Global Food Security, Queen's University Belfast, UK

STEERING COMMITTEE

- ☼ Dr Katrina Campbell Queen's University Belfast, UK
- ☼ Dr Isabelle Oswald INRA, France
- ☼ Prof. Chiara Dall'Asta University of Parma, Italy
- ☼ Dr Michele Suman Barilla, Italy
- ☼ Dr Sheryl Tittlemier Canadian Grain Commission, Canada

ADVISORY COMMITTEE

- ☼ Dr Amare Ayalew African Union Commission, Ethiopia
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- ☼ Dr Johan De Meester Cargill R&D Centre Europe, Belgium
- ☼ Prof. Sarah De Saeger Ghent University, Belgium
- ☼ Dr Jagger Harvey Kansas State University, USA
- ☼ Prof. Yang Liu Chinese Academy of Agricultural Sciences, China
- ☼ Dr Antonio Logrieco Institute of Sciences of Food Production, Italy
- ☼ Prof. Carlos A. Mallmann Federal University of Santa Maria, Brazil
- ☼ Dr Gerardo Morantes Bühler Group, USA
- ☼ Dr Monique de Nijs Wageningen Food Safety Research, the Netherlands
- ☼ Dr Awanwee Petchkongkaew Thammasat University, Thailand
- ☼ Dr Lindy J. Rose Stellenbosch University, South Africa
- ☼ Dr Michael N. Routledge University of Leeds, UK
- ☼ Dr Paul South U.S. Food and Drug Administration, USA



PROGRAMME AT A GLANCE

SUNDAY 13 OCTOBER 2019

| | |
|---------------|---------------------------------------------|
| 18:30 – 20:00 | Welcome reception – sponsored by R-Biopharm |
|---------------|---------------------------------------------|

MONDAY 14 OCTOBER 2019

| | | | |
|---------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------|
| 10:00 – 10:15 | Opening of WMFmeetsIUPAC | | EXHIBITION |
| 10:15 – 10:30 | Introduction and overview of the conference | | |
| 10:30 – 12:30 | PLENARY SESSION Looking beyond horizons | | |
| 12:30 – 13:45 | Lunch break & poster viewing | | |
| 13:45 – 15:15 | SESSION 1 Controlling plant disease and mycotoxin formation | SESSION 2 Process optimisation to reduce mycotoxin contamination of food and feed | |
| 15:15 – 15:45 | Networking break & poster viewing | | |
| 15:45 – 17:00 | Company pitches* | | |
| 17:00 – 18:00 | Speed presentations** | | |
| 18:00 – 19:30 | Poster viewing Wine tasting – sponsored by Biomin and Romer Labs | | |

* Short presentations by sponsors to inspire the audience to visit their booths

** Short presentation by selected poster presenters to provide an overview of their research

TUESDAY 15 OCTOBER 2019

| | | | |
|---------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|
| 08:30 – 10:30 | SESSION 3 Mitigating the negative impact of mycotoxins | SESSION 4 Smart strategies for effective mycotoxin management along the chain: toward food & feed 4.0 – Part 1. MyToolBox | EXHIBITION |
| 10:30 – 11:00 | Networking break & poster viewing | | |
| 11:00 – 12:30 | SESSION 5 Fate of free and modified forms of mycotoxins | SESSION 4 (continued) | |
| 12:30 – 13:45 | Lunch break & poster viewing Workshops | | |
| 13:45 – 15:30 | SESSION 6 Mycotoxins: occurrence, exposure and effects | SESSION 7 Smart strategies for effective mycotoxin management along the chain: toward food & feed 4.0 – Part 2. MycoKey | |
| 15:30 – 16:00 | Networking break & poster viewing | | |
| 16:00 – 17:30 | SESSION 6 (continued) | SESSION 8 Mycotoxin mitigation at the front lines – Feed the Future Innovation Labs and global collaborations | |
| 19:30 – 22:30 | Conference dinner (<i>reservations only</i>) | | |

WEDNESDAY 16 OCTOBER 2019

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|---------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------|
| 08:45 – 10:30 | SESSION 9 Update on (multi-)mycotoxin analysis | SESSION 10 Improving food security and safety at the global level – Mytox-South | EXHIBITION |
| 10:30 – 11:00 | Networking break & poster viewing | | |
| 11:00 – 12:40 | PLENARY SESSION Looking at mycotoxins from a different angle | | |
| 12:40 – 12:50 | Best Poster Award presentation | | |
| 12:50 – 13:10 | WMFmeetsIUPAC – Top Five Answers learned | | |
| 13:10 – 13:15 | Looking forward to WMFmeetsASIA and WMFmeetsITALY | | |
| 13:15 | Closing of WMFmeetsIUPAC | | |

SUNDAY 13 OCTOBER 2019

18:30 – 20:00

Welcome reception sponsored by R-Biopharm

The welcome reception provides an excellent opportunity to network, meet old friends and colleagues as well as new people.

MONDAY 14 OCTOBER 2019

PLENARY SESSION

Looking beyond horizons

The horizon is visible. It represents the edge of what is known or manifest. It does not, however, define the limit of what exists or of what is possible. Think about it this way: the horizon is the beginning of a new challenge. Are you ready to take mycotoxin management and control to a new level?

CHAIRS: Prof. Rudolf Krska, *BOKU Vienna, Austria* and Prof. Chris Elliott, *Queen's University Belfast, UK*

10:00 Opening of WMFmeetsIUPAC

10:15 Introduction and overview of the conference

Prof. Rudolf Krska, *Department IFA-Tulln, BOKU Vienna, Austria*

Prof. Chris Elliott, *Institute for Global Food Security, Queen's University Belfast, UK*

10:30 Creating a common language for chemistry: looking beyond IUPAC's 100TH anniversary

Prof. Diane Purchase, *Department Natural Sciences, Middlesex University London, UK*

on behalf of the Division of Chemistry and the Environment, International Union of Pure and Applied Chemistry (IUPAC)

10:45 The grand challenge of climate change – beyond mycotoxins

Prof. Manfred Grasserbauer, *Vienna University of Technology, Austria*

11:10 Agriculture 4.0 and mycotoxin management

Prof. Josse De Baerdemaeker, *Division of Mechatronics, Biostatistics and Sensors, KU Leuven, Belgium*

11:30 Vertical farming: solution to old problems?

Prof. Nigel Scollan, *Institute for Global Food Security, Queen's University Belfast, UK*

11:50 Mycotoxins and beyond: the expanding role of the exposome concept in assessing exposure and effect of food contaminants

Dr Benedikt Warth, *Department of Food Chemistry and Toxicology, University of Vienna, Austria*

12:10 Is the horizon getting closer? Mycotoxins, economics and globalisation: look beyond the horizon!

Ronald Niemeijer, M.Sc., *R-Biopharm AG, Germany*

12:30 Lunch break

Exhibition & poster viewing

MONDAY 14 OCTOBER 2019

SESSION I

Controlling plant disease and mycotoxin formation

What is in the pipeline for obtaining plant disease resistance and reducing mycotoxin contamination?

CHAIR: Prof. Chiara Dall'Asta, *University of Parma, Italy*

13:45 Plant mechanisms counteracting *Fusarium* virulence factors, a way to reduce mycotoxin contamination?

Dr Gerhard Adam, *Department of Applied Genetics and Cell Biology, BOKU Vienna, Austria*

14:00 Is host resistance against *Aspergillus flavus* infection and aflatoxin contamination possible? Gene expression of resistant and susceptible maize lines provides insights!

Dr Matthew Gilbert, *Agricultural Research Service, U.S. Department of Agriculture, USA*

14:15 MS imaging reveals plant resistant mechanisms against mycotoxins – the location makes the difference

Dr Laura Righetti, *Food and Drug Department, University of Parma, Italy and Institute of Inorganic and Analytical Chemistry, Justus Liebig University of Giessen, Germany*

14:30 Using plant breeding innovations, such as CRISPR, to enhance disease resistance
speaker to be confirmed

14:45 Use of endophytic fungi as biocontrol agents of cereal diseases

Dr Hans Jorgen Lyngs Jorgensen, *Department of Plant and Environmental Sciences, University of Copenhagen, Denmark*

15:00 Harnessing the microbiome to reduce *Fusarium* head blight

Dr Matthew Bakker, *Department of Microbiology, University of Manitoba, Canada*

15:15 Networking break & poster viewing

MONDAY 14 OCTOBER 2019

SESSION 2

Process optimisation to reduce mycotoxin contamination of food and feed



Where do we stand today? This session will introduce some options to optimise food processing to reduce mycotoxin contamination of food and feed under the motto: “from scientific findings to practical guidance – the ILSI Europe experience”.

CHAIR: Dr Michele Suman, *Barilla SpA, Italy*

13:45 Mitigation of mycotoxins along food processing: from scientific findings to practical guidance – the ILSI Europe experience
Dr Michele Suman, *Barilla SpA, Italy*

14:00 Occurrence and toxicological scenario of relevant mycotoxins at the industrial level – state of the art
Dr Neil Buck, *General Mills, Inc., Switzerland*

14:20 First in-depth analysis: how to manage the cereals food production chain mitigating mycotoxins
Dr Johan De Meester, *Cargill, Belgium*

14:40 Second in-depth analysis: how to manage the dairy food production chain mitigating mycotoxins
Dr Luca Dellaflora, *Department of Food and Drug, University of Parma, Italy*

15:00 Final wrap-up and Q&A time
Michele Suman, Neil Buck, Johan De Meester, and Luca Dellaflora

15:15 Networking break & poster viewing



MONDAY 14 OCTOBER 2019

PLENARY SESSION

Company pitches and speed presentations

CHAIR: Dr Awanwee Petchkongkaew, *Thammasat University, Thailand*

15:45 **Company pitches**

Short presentations (5-minutes) by sponsors to inspire the audience to visit their booths

17:00 **Speed presentations**

Short presentations (6-minutes) by selected poster presenters to provide an overview of their research

18:00 **Poster viewing**

WINE TASTING – Sponsored by **Biomin and Romer Labs**

in the good tradition of previous years, a Wine & Cheese tasting party will be organised.

A great way to meet all colleagues from the mycotoxin community and to view the posters presented.



TUESDAY 15 OCTOBER 2019

SESSION 3

Mitigating the negative impact of mycotoxins

A look into recent and promising strategies related to mitigating mycotoxin contamination in food and feed. What's up?

CHAIR: Dr Katrina Campbell, *Queen's University Belfast, UK*

08:30 An integrated approach to mitigate mycotoxins in feed

Dr Paul Bruinenberg, *Trouw Nutrition, the Netherlands*

08:45 Oxidative stress in piglets fed diets containing purified mycotoxins and mycotoxin deactivator

Prof. Bruno Silva, *Institute of Agricultural Sciences, Federal University of Minas Gerais, Brazil*

09:00 The role of yeast fractions in mitigating the negative impact of mycotoxins in animals

Dr Virginie Marquis, *Phileo Lesaffre Animal Care, France*

09:15 Mycotoxin mitigation in the context of multiple mycotoxin challenges

Dr Alexandros Yiannikouros, *Alltech, USA*

09:30 Efficacy of mycotoxin binders in an artificial gastrointestinal tract of monogastric animal

Oluwatobi Kolawole, *Institute for Global Food Security, Queen's University Belfast, UK*

09:45 Development of a lactonase for mitigation of zearalenone exposure of farmed animals

Dr Wulf-Dieter Moll, *Biomin Research Center, Austria*

10:00 Yellow mealworms are highly resistant to aflatoxin B₁ and zearalenone – a possible approach for grain 'detoxification'?

Prof. Ronald Maul, *National Reference Laboratory for Mycotoxins, German Federal Institute for Risk Assessment, Germany*

10:15 Cold plasmas: a potential approach to mitigate microbiological and toxicological risks in the food & feed chain

Prof. Brendan Gilmore, *School of Pharmacy, Queen's University Belfast, UK*

10:30 Networking break & poster viewing



TUESDAY 15 OCTOBER 2019

SESSION 5

Fate of free and modified forms of mycotoxins

From exposure to metabolism and degradation: a collection of recent research.

CHAIR: Dr Franz Berthiller, *BOKU Vienna, Austria*

11:00 **DONEXPO project: exposure to deoxynivalenol as free form and its main urinary metabolites found in Italy, UK and Norway**
Dr Barbara De Santis, *Department of Food Safety and Veterinary Public Health, Istituto Superiore di Sanità, Italy*

11:15 **Elucidation of the mycotoxin human toxicokinetics: the key for an adequate biomonitoring exposure programme**
Dr Arnau Vidal, *Centre of Excellence in Mycotoxicology and Public Health, Ghent University, Belgium*

11:30 **Ochratoxin A and 2'R-ochratoxin A: new insights into pharmacokinetics and metabolism**
Dr Benedikt Cramer, *Institute of Food Chemistry, University of Münster, Germany*

11:50 **Microbial hydrolysis and metabolism of mycotoxins by intestinal microbiota**
Dr Silvia Gratz, *The Rowett Institute, University of Aberdeen, UK*

12:10 **Fate of ergot alkaloids during laboratory scale durum processing and pasta production**
Dr Sheryl Tittlemier, *Grain Research Laboratory, Canadian Grain Commission, Canada*

12:30 **Lunchbreak**
Exhibition & poster viewing
Workshops (*for details, see Workshop programme*)



TUESDAY 15 OCTOBER 2019

SESSION 4

Smart strategies for effective mycotoxin management along the chain: toward food & feed 4.0 – Part I. MyToolBox



The project MyToolBox funded by the European Commission aims at reducing the mycotoxin contamination throughout the food and feed chain by integrating different disciplines and research into an ICT tool that assists stakeholders in decision making.

CHAIR: Dr Monique de Nijs, *Wageningen Food Safety Research, the Netherlands*

08:30 **Integrated multi-actor partnerships in the EU and China as the key to tackle mycotoxins along the food and feed chain**

Prof. Rudolf Krska, *Department IFA-Tulln, BOKU Vienna, Austria*

08:45 **Control of *Fusarium* head blight – alternatives to triazole fungicides**

Prof. Simon Edwards, *Crop and Environment Sciences, Harper Adams University, UK*

09:00 **Forecasting mycotoxins in grains at the European level**

Dr Cheng Liu, *Wageningen Food Safety Research, the Netherlands*

09:15 **Cost-effective monitoring of aflatoxins in maize**

Marloes Focker, M.Sc., *Wageningen Food Safety Research, the Netherlands*

09:30 **Dynamic real-time decision support system for minimising mycotoxin risks in grain**

Dr Angel Medina, *Applied Mycology Group, Cranfield University, UK*

09:45 **Synergistic potential of pre-milling and milling strategies to minimise mycotoxins and increase fibre content of wheat-based products**

Dr Michele Suman, *Barilla SpA, Italy*

10:00 **Mitigation of deoxynivalenol during industrial baking: is it possible?**

Dr Franz Berthiller, *Department IFA-Tulln, BOKU Vienna, Austria*

10:15 **Mycotoxins during the processes of nixtamalisation and tortilla production**

Dr Sara Schaarschmidt, *Department Safety in the Food Chain, German Federal Institute for Risk Assessment, Germany*

10:30 **Networking break & poster viewing**

- 11:00** Safe use options of contaminated batches through detoxification of mycotoxins during bioethanol production using enzymes
Dr Gerd Schatzmayr, *Biomin Research Center, Austria*
- 11:15** Biological detoxification of mycotoxins in maize and its products
Prof. Liu Yang, *Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, China*
- 11:30** Testing detoxifying feed additives in China within Horizon 2020
Dr Jinquan Wang, *Feed Research Institute, Chinese Academy of Agricultural Sciences, China*
- 11:45** Intention of European wheat farmers to use decision support systems for *Fusarium spp.* management
Esmee Janssen, M.Sc., *Business Economics Group, Wageningen University & Research, the Netherlands*
- 12:00** E-platform for mycotoxin prevention and control along the chain
Ignacio Montero Castro, *IRIS Technology Solutions, Spain* and
Dr Ine van der Fels-Klerx, *Wageningen Food Safety Research, the Netherlands*
- 12:30** Lunchbreak
Exhibition & poster viewing
Workshops (*for details, see Workshop programme*)



TUESDAY 15 OCTOBER 2019

SESSION 6

Mycotoxins: occurrence, exposure and effects

The latest developments and new challenges in relation to the impact of mycotoxins on human and animal health will be presented.

CHAIRS: Dr Isabelle Oswald, *INRA, France* and Dr Michael Routledge, *University of Leeds, UK*

.....
13:45 Chair's introduction

13:50 Cadmium and deoxynivalenol in durum wheat grains: physiological and biological basis of the co-contamination

Sylvain Chéreau, *Mycologie et Sécurité des Aliments, INRA, France*

14:10 Household-level aflatoxin contamination in rural village food systems: toward a participatory action research approach

Anthony Wenzdt, *Plant Pathology and Plant-Microbe Section, Cornell University, USA*

14:30 Impact of chronic multi-mycotoxin dietary exposure on colorectal and liver cancer risk in Europe

Dr Inge Huybrechts, *Nutritional Epidemiology Group, International Agency for Research on Cancer, France*

14:50 Human biomonitoring to estimate exposure to deoxynivalenol and zearalenone: a combined 24-hour duplicate diet – 24-hour urine study

Dr Hans Mol, *Wageningen Food Safety Research, the Netherlands*

15:10 Complementarity of internal and external dietary mycotoxin exposure: a comprehensive study in five European populations

Dr Marthe De Boevre, *Centre of Excellence in Mycotoxicology and Public Health, Ghent University, Belgium*

15:30 Networking break & poster viewing

16:00 **The role of mycotoxins in bacterial and viral disease outbreaks – a review**

Julia Laurain, *Omix Group, France*

16:15 **Immunosuppressive activity of *Alternaria* toxins**

Prof. Doris Marko, *Department of Food Chemistry and Toxicology, University of Vienna, Austria*

16:35 **Aflatoxins in food: EFSA’s comprehensive risk assessment**

Dr Kathleen Baert, *Risk Assessment and Scientific Assistance Department, European Food Safety Authority, Italy*

16:50 **Assessing the combined toxicity of natural toxins by high content analysis**

Dr Julie Meneely, *Institute for Global Food Security, Queen’s University Belfast, UK*

17:10 **Mycotoxin mixtures in food and feed: a holistic, innovative, flexible modelling approach for risk assessment – MYCHIF**

Prof. Paola Battilani, *Department of Sustainable Crop Production, Università Cattolica del Sacro Cuore, Italy*

19:30 – 22:30

Conference dinner

Join us for a very special event with an unforgettable experience in Belfast!



TUESDAY 15 OCTOBER 2019

SESSION 7

Smart strategies for effective mycotoxin management along the chain: toward food & feed 4.0 – Part 2. MycoKey



The project MycoKey funded by the European Commission aims at developing smart, integrated, sustainable solutions and innovative tool kits to reduce the major mycotoxins in economically important food and feed chains.

CHAIR: Dr Antonio F. Logrieco, *Institute of Sciences of Food Production, Italy*

13:45 MycoKey: a success story of EU-China cooperation for minimising mycotoxins along chains
Dr Antonio F. Logrieco, *Institute of Sciences of Food Production, National Research Council, Italy*

14:15 Preventive reduction of *Fusarium* inoculum and toxins through antagonistic fungi on pre-crop residues
Dr Susanne Vogelgsang, *Research Division Plant Protection, Agroscope, Switzerland*

14:30 A joint model for fumonisin and aflatoxin prediction in maize
Dr Marco Camardo Leggieri, *Department of Sustainable Crop Production, Università Cattolica del Sacro Cuore, Italy*

14:45 A new antifungal device for the control of *Penicillium verrucosum* in barley during storage
Dr Giuseppe Meca, *Department of Preventive Medicine and Public Health, University of Valencia, Spain*

15:00 *In vitro* and *in vivo* efficacy assessment of a new bentonite-based material acting as a multi-mycotoxin binder
Dr Vito D'Ascanio, *Institute of Sciences of Food Production, National Research Council, Italy*

15:15 Fluorescence polarisation immunoassays for the determination of trichothecenes and modified forms in wheat
Dr Vincenzo Lippolis, *Institute of Sciences of Food production, National Research Council, Italy*

15:30 Networking break & poster viewing



TUESDAY 15 OCTOBER 2019

SESSION 8

Mycotoxin mitigation at the front lines – Feed the Future Innovation Labs and global collaborations

The Feed the Future Innovation Labs draw on the expertise of top U.S. universities and developing country research institutions to tackle some of the world's greatest challenges in agriculture and food security. In this session, the focus is on mycotoxins.

CHAIRS: Dr Jagger Harvey, *Kansas State University, USA* and Dr Andreia Bianchini, *University of Nebraska-Lincoln, USA*

- 16:00** **Integrated approaches to mycotoxin reduction in Africa, Asia and Central America: Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss case studies**
Dr Jagger Harvey (*Director, Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss*), *Department of Plant Pathology, Kansas State University, USA* and Dr Andreia Bianchini, *Food Science and Technology Department, University of Nebraska-Lincoln, USA*
- 16:15** **Aflatoxin exposure and health outcomes in infants and young children: findings from Nepal and Uganda**
Dr Shibani Ghosh (*Associate Director, Feed the Future Innovation Lab for Nutrition*), *Friedman School of Nutrition Science and Policy, Tufts University, USA*
- 16:30** **When prevention fails: the need, use and estimated market for aflatoxin sequestering agents in three African countries**
Prof. Gbola Adesogan (*Director, Feed the Future Innovation Lab for Livestock Systems*), *Department of Animal Sciences, University of Florida, USA*
- 16:45** **Protecting maize from ear rots and mycotoxins through push-pull cropping system in Africa**
Dr Charles Midega, *International Centre of Insect Physiology and Ecology, Kenya*
- 17:00** **Improved drying and storage practices that reduce aflatoxins in stored maize: experimental evidence from smallholders in Senegal**
Dr Jacob Ricker-Gilbert, *Department of Agricultural Economics, Purdue University, USA*
- 17:15** **Overview of aflatoxin contamination challenge in food and feed and potential use of cold plasma to mitigate aflatoxins**
Kizito Nishimwe, M.Sc., *Department of Food Science and Nutrition, Iowa State University, USA*

19:30 – 22:30

Conference dinner

Join us for a very special event with an unforgettable experience in Belfast!

WEDNESDAY 16 OCTOBER 2019

SESSION 9

Update on (multi-)mycotoxin analysis

Recent developments – from sampling to multi-mycotoxin analysis and more – will get through here.

CHAIR: Dr Sheryl Tittlemier, *Canadian Grain Commission, Canada*

- 08:45** **Maize meal slurry mixing: an economical recipe for precise aflatoxin quantitation**
Joseph Kumphanda, *Department of Applied Studies, Malawi University of Science and Technology, Malawi*
- 09:00** **Quantitation of ochratoxin A, 4-deoxynivalenol and zearalenone in wheat: production of certified reference materials and assessment of isotope dilution strategies**
Dr Adilah Bahadoor, *Metrology Research Centre, National Research Council of Canada, Canada*
- 09:15** **LC-MS/MS based quantitative multi-target approach for food and feed: crossing the limit of 1000 metabolites**
David Steiner, M.Sc., *Austrian Competence Center for Feed, Food, Quality, Safety and Innovation (FFoQSI), Austria*
- 09:30** **Benefits of collision cross section (CCS) data obtained by UPLC-ESI-IMS-QTOF MS for small molecules identification: application to mycotoxins screening**
Prof. Juan V. Sancho, *Department of Physical and Analytical Chemistry, Universitat Jaume I, Spain*
- 09:45** **Mycotoxin testing paradigm: challenges and opportunities for the future**
Dr Mark Sumarah, *London Research & Development Centre, Agriculture and Agri-Food Canada, Canada*
- 10:00** **Mycotoxin rapid testing – why the most innovative technologies fail on their way to the market**
Dr Kurt Brunner, *Romer Labs Division Holding GmbH, Austria*
- 10:15** **Ultrafast method for managing mycotoxins in the feed industry**
Prof. Carlos Mallmann, *Laboratory for Mycotoxicological Analysis, Federal University of Santa Maria, Brazil*
- 10:30** **Networking break & poster viewing**

WEDNESDAY 16 OCTOBER 2019

SESSION 10

Improving food security and safety at the global level
– Mytox-South



Mytox-South is a partnership to improve food security and safety through mitigation of mycotoxins at the global level with the following long-term goals: building human and infrastructural capacity, bridging the gap between research, academia and industry, and creating a sustainable network on mycotoxin research.

CHAIR: Prof. Sarah De Saeger, *Ghent University, Belgium*

08:45 Introduction to Mytox-South

Prof. Sarah De Saeger (*Mytox-South coordinator*), *Department of Bioanalysis, Ghent University, Belgium*

09:00 Does the existence of mycotoxin regulations have any impact in Africa?

Dr Limbikani Matumba, *Lilongwe University of Agriculture and Natural Resources, Malawi*

09:15 Mycosafe-South, the EU LEAP-Agri project on mycotoxin mitigation in Africa

Prof. Siska Croubels (*coordinator Mycosafe-South coordinator*), *Department of Pharmacology, Toxicology, and Biochemistry, Ghent University, Belgium*

09:30 The African Society for Mycotoxicology: bringing African stakeholders together

Prof. Sheila Okoth (*ASM-president*), *School of Biological Sciences, University of Nairobi, Kenya*

09:45 The African Centre of Excellence for Mycotoxin and Food Safety, the World Bank project

Prof. Hussaini Makun (*ACEMFS-coordinator*), *Department of Biochemistry, Federal University of Technology, Minna, Nigeria*

10:00 The position of African women in mycotoxin research

Prof. Yemisi Jeff-Agboola, *Department of Biological Sciences, University of Medical Sciences, Nigeria*

10:15 Beyond the lab bench: translating research into policy and action

Dr Melody Ndemera, *Ministry of Higher and Tertiary Education, Science and Technology Development, Zimbabwe*

10:30 Networking break & poster viewing

WEDNESDAY 16 OCTOBER 2019

FINAL PLENARY SESSION

Looking at mycotoxins form a different angle

Take a step back, take a deep breath and actually look at mycotoxins with a different perspective.

CHAIRS: Prof. Rudolf Krska, *BOKU Vienna, Austria* and Prof. Chris Elliott, *Queen's University Belfast, UK*

11:00 Relative importance/priority of mycotoxins compared to other public health risks
Dr Peter Ben Embarek, *Risk Assessment and Management Unit, World Health Organization, Switzerland*

11:20 Worldwide occurrence – where does the decades-old FAO figure of 25% contamination stand today?
Dr Gregor Kos, *Department of Chemistry and Biology, Concordia University, Canada*

11:40 Are very low doses of mycotoxins predisposing factors for other pathologies?
Dr Isabelle Oswald, *Toxalim Research Centre in Food Toxicology, INRA, France*

12:00 The toxic side to food fraud – what about mycotoxins?
Prof. Chris Elliott, *Institute for Global Food Security, Queen's University Belfast, UK*

12:20 Holistic approach to mould and mycotoxin risk management
Dr Guangtao Zhang, *Mars Global Food Research Center, China*

12:40 BEST POSTER AWARD PRESENTATION

12:50 Looking beyond horizons – Top Five Answers learned at WMFmeetsIUPAC
Prof. Rudolf Krska and Prof. Chris Elliott

13:10 Looking forward to WMFmeetsASIA and WMFmeetsITALY

13:15 Closing of WMFmeetsIUPAC
Take your packed lunch to eat along the way!



WORKSHOP PROGRAMME

TUESDAY 15 OCTOBER 2019
12:30 – 13:30

WORKSHOP 1

Assessing grain contamination: the future of quantifiable decision-point diagnostics

Sponsored by EnviroLogix

With the awareness of mono and co-occurring mycotoxin contamination increasing, the need for easy, accurate, and comprehensive decision-point testing has never been more critical to assessing grain quality and maximising operational efficiency. Effective, flexible solutions must be created to keep pace with evolving market needs. EnviroLogix, Inc. is a leading producer of mycotoxin and GMO tests serving the food and feed safety market. The company was the first to offer LFD technology for mycotoxin screening and remains committed to delivering innovative solutions to its markets. This workshop will discuss the innovative diagnostic solutions offered by EnviroLogix that improve operational efficiency in this evolving market.

WORKSHOP 2

Biochip array technology: towards accurate multi-analyte and multi-matrix multiplex testing

Sponsored by Randox Food Diagnostics

New horizons for mycotoxin testing have been established by means of the biochip array technology (BAT). This technology encompasses sensitivity, simplicity, rapidity, accuracy and ruggedness. Different matrices (cereals, cereal products, grains, grain products, feed) can be analysed for up to ten mycotoxins, quantitatively, simultaneously in one run. The technology has revolutionised mycotoxin routine testing in the food and feed industry, as well as generating detailed surveillance data for governmental food safety programmes.



EXCURSION

WEDNESDAY 16 OCTOBER 2019
14:00 – 16:00

Visit to the home of the Institute for Global Food Security, Queen's University, Belfast

The two-hour excursion will include a visit to the newly opened Biological Sciences Building, which houses the Institute for Global Food Security. The 12,000 sqm building was constructed at a cost of € 50 M for over 300 researchers.

One of the centre pieces of the institute is its analytical facility which contains multiple mass spectrometry platforms, sensor technologies and Europe's first Cold Plasma Research Centre. A range of hands-on demonstration will be held to show how rapid, low cost decontamination of feeds and food can be performed using cold plasma technologies, as well as demonstrations across a range of technology platforms to undertake targeted and untargeted analysis for food safety and food fraud measurements.

The excursion is facilitated by the Institute for Global Food Security, Queen's University, Belfast, the top ranked research cluster in the UK in agriculture, food and veterinary sciences. **WMFmeetsIUPAC** would like to acknowledge the help from the staff within the institute for organising the excursion.

Important note: The number of participants in this excursion is limited to 40 on a first-come, first-served basis. Reservations can be made through the online Conference Registration Form.



GENERAL INFORMATION

Website

The latest details of **WMFmeetsIUPAC** can be found at: www.WorldMycotoxinForum.org

Who should attend

WMFmeetsIUPAC is bringing together businesses and food/feed professionals in all stages of the agrifood chain, regulatory authorities and inspectors, consulting agencies and advisors, and science from all over the world.

Venue

WMFmeetsIUPAC will be held will be held in ICC Belfast, Northern Ireland's only purpose-built international convention centre. ICC Belfast is conveniently located close to a wide selection of city centre hotels.

Registration

For all relevant information on registration fees and on-line registration, please visit: www.WorldMycotoxinForum.org

Hotel accommodation

Participants are responsible for making their own accommodation arrangements. Visit Belfast is the official housing agent for this event. Special room rates have been arranged at different hotels, all conveniently located within walking distance of the conference venue. All information can be found at: www.WorldMycotoxinForum.org

Call for poster abstracts

Interested participants are strongly encouraged to submit poster abstracts (max. 400 words) by no later than **15 August 2019**. There is a limit of 2 abstracts which can be submitted by one participant. All information on poster abstract submission can be found at: www.WorldMycotoxinForum.org

A number of posters will be selected for 6-minute talks ('speed presentations') on **Monday 14 October 2019**.

Best Poster Award

There will be a Best Poster Award to encourage scientists to display outstanding posters during the conference.

The Best Poster Award will be presented at the closing ceremony on **Wednesday 16 October 2019**.

Business opportunities

WMFmeetsIUPAC offers various business opportunities, including:

- ✿ Sponsoring of the conference
Benefit from excellent name recognition!
- ✿ Exhibiting at the conference
Gain valuable direct exposure! Parallel to the conference a commercial exhibition will be organised in which presentations of equipment, products, and services are given. Participants of the conference have ample opportunity to visit the exhibition during the various breaks.

For all information on the business opportunities, please visit: www.WorldMycotoxinForum.org

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Language

English will be the official conference language. No simultaneous interpretation will be provided.

It may be necessary for reasons beyond the control of the organisers to alter the content and timing of the programme or the identity of the speakers.

WMFmeetsIUPAC
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BELFAST AND NORTHERN IRELAND

Belfast is a city with a remarkable heritage, from its emergence as a world centre of industry and shipbuilding, through a generation of political and social turmoil, to the vibrant and growing urban centre that you see today. Throughout Belfast's history the character, humour and local pride of its residents has always been a defining part of the city. Modern Belfast offers a fantastic quality of life, and with a relatively young population the city continues to evolve and develop.

Belfast has a thriving arts and cultural scene ranging from the traditional to the highly contemporary – something to cater for all tastes. And the city's relatively compact geography means it's all within easy reach. However, if you want a break from the hustle of the city you don't have to travel far before you're surrounded by stunning countryside and coastline.

Queen's University, based in the heart of Belfast, is one of the leading universities in the UK and Ireland, providing world-class education underpinned by world-class research.

For those wishing to take full advantage of travelling to WMF*meets*IUPAC we recommend to enjoy Northern Ireland after the conference. There's a remarkable history and culture, outstanding golf, great shopping, world-class restaurants, and a lively music scene. Most recently, Northern Ireland's role as the filming location for Game of Thrones has attracted many visitors. You can be assured of a warm and friendly welcome! Places to go, things to do, and trip ideas can be found at <https://discovernorthernireland.com/>

