



PRE-CONFERENCE on HUMAN EXPOSOME

***Understanding mycotoxin-induced adverse health effects
through exposome research***

12 October 2021

The Human Exposome, the first in the series of virtual pre-conferences, takes place on a highly interactive platform. Topics to be covered include the exposome concept in mycotoxin research, biomarkers, analytical methods, validation, reference materials, and more.

PROGRAMME

All times are in Central European Summer Time (CEST)

- 12:30 The World Mycotoxin Forum® Connects
General conference chairs: Prof. Rudolf Krska, Department IFA-Tulln, BOKU Vienna, Austria and Prof. Chris Elliott, Institute for Global Food Security, Queen's University of Belfast, UK
- 12:45 *The human exposome – understanding mycotoxin-induced adverse health effects through exposome research*
Pre-conference chair: Prof. Sarah De Saeger, Centre of Excellence in Mycotoxicology and Public Health, Ghent University Belgium
- 12:55 *The role of mycotoxin research in the era of exposomics*
Dr Benedikt Warth, Department of Food Chemistry and Toxicology, University of Vienna, Austria
- 13:20 *Biomonitoring and human exposure to multiple mycotoxins*
Beatriz Arce-López, Department of Pharmaceutical Technology and Chemistry, Universidad de Navarra, Spain
- 13:45 *Validated biomarker standards are needed for reliable assessment of multi-mycotoxin exposure in human populations*
Dr Mark Sumarah, London Research and Development Centre, Agriculture and Agri-Food Canada, Canada
- 14:10 *The promise of DNA adductomics in exposomics*
Dr Lieselot Hemeryck, Department of Veterinary Public Health and Food Safety, Ghent University, Belgium
- 14:35 *The internal exposome in cohort studies – from concept to practice*
Dr Augustin Scalbert, Nutrition and Metabolism Branch, International Agency for Research on Cancer, France
- 15:00 **Break**
- 15:15 *FlexiGUT: towards a comprehensive understanding of the life-course impact of dietary and environmental exposure on chronic low-grade gut inflammation*
Prof. Sarah De Saeger
Centre of Excellence in Mycotoxicology and Public Health, Ghent University, Belgium
- 15:40 Beyond the randomized clinical trial (RCT) method: time for a more holistic approach in *nutrition interventions*
Laetitia Celine Toe, Institut de Recherche en Sciences de la Santé, Burkina Faso and Ghent University, Belgium
- 16:05 *Personal exposomes and human health*
Prof. Michael P. Snyder, Department of Genetics, Stanford University School of Medicine, USA
- 16:30 *The exposome: future advances, future challenges*
Prof. Gary W. Miller, Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, USA
- 16:55 Young scientist pitches
- *Mycotoxin biomonitoring/exposure and microbiome development in infants*
Kolawole Ayeni, Babcock University, Nigeria
 - TBA
 - TBA
 - TBA
 - TBA

17:30 Presentation of the Pitch Award
Prof. Sarah De Saeger

17:35 Closing remarks and outlook for:

- Virtual pre-conferences on Animal Health (30 November 2021) and on Analysis (1 February 2022)
Prof. Rudolf Krska and Prof. Chris Elliott
- WMF *meets* ITALY, 16-18 May 2022, Parma, Italy
Dr Michele Suman and Prof. Chiara Dall'Asta

ABOUT THE SPEAKERS

Beatriz Arce-López

Being a PhD student, the research of Beatriz Arce-López focuses on human biomonitoring of exposure to mycotoxins.

Sarah De Saeger

Prof. De Saeger is the director of the Centre of Excellence in Mycotoxicology and Public Health. She is coordinator of MYTOX (association research platform) and MYTOX-SOUTH (ITN, international thematic network).

Lieselot Hemeryck

Dr Hemeryck's research include DNA adductomics (chemically induced DNA adduct formation), metabolomics, food and chemical toxicology, nutritional biochemistry, and clinical chemistry.

Gary W. Miller

Prof. Miller is a leader in the exposome field. He authored the first book on the topic, *The Exposome: A Primer*. His research explores how the total of all exposures throughout an individual's life can impact their resulting health.

Augustin Scalbert

Dr Scalbert is head of the Biomarker group. His current research projects include new metabolomic approaches to measure the exposome in cohort studies and dietary biomarkers for cancer risk studies

Michael P. Snyder

Prof. Snyder is leader in the field of functional genomics and multiomics. His laboratory develops and uses a variety of approaches to analyse genomes, other comes, and regulatory networks to understand human variation and health.

Mark Sumarah

The majority of Dr Sumarah's current research is focused on the development and implementation of better tools using mass spectrometry for the detection and monitoring of mycotoxins in the food production system and agricultural contaminants in the environment.

Laetitia Celine Toe

As the principal investigator, Laetitia Celine Toe directs the MISAME-III study (Micronutriments pour la Santé de la Mère et de l'Enfant), the third in a row to elucidate the relationship between maternal nutrition and birth outcome, infant growth and morbidity using multidisciplinary approaches.

Benedikt Warth

Dr Warth's research focus is in the area of omics-scale exposure assessment and analytical food chemistry to better understand the *in vivo* and *in vitro* effects of environmental and food contaminants.