



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)

- 12:15 **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
- 12:30 *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
- 12:40 *The role of mycotoxin research in the era of exposomics*
Dr Benedikt Warth, Department of Food Chemistry and Toxicology, University of Vienna, Austria
- 13:05 *Biomonitoring and human exposure to multiple mycotoxins*
Beatriz Arce-López, Université de Brest and Universidad de Navarra, Spain
- 13:30 *Validated biomarker standards are needed for reliable assessment of multi-mycotoxin exposure in human populations*
Dr Mark W. Sumarah, London Research and Development Centre, Agriculture and Agri-Food Canada, Canada
- 13:55 *The promise of DNA adductomics in exposomics*
Dr Lieselot Y. Hemeryck, Department of Translational Physiology, Infectiology and Public Health, Ghent University, Belgium
- 14:20 *The internal exposome in cohort studies – from concept to practice*
Dr Augustin Scalbert, Nutrition and Metabolism Branch, International Agency for Research on Cancer, France

14:45 **EXHIBITION:** Visit the booths and live chat with our sponsors.
PIAZZA CONNECTS: Meet & Greet the chairs, the speakers and the WMF community.

- 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
- 16:00 *Personal exposomes and human health*
Prof. Michael P. Snyder, Department of Genetics, Stanford University School of Medicine, USA
- 16:25 *The exposome: future directions, future challenges*
Prof. Gary W. Miller, Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, USA

16:50 **EXHIBITION:** Visit the booths and live chat with our sponsors.
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17:15 **Young scientist pitches** chaired by Prof. Chris Elliott

Young scientists are given the floor to pitch their research. The time slot per pitch is 7 minutes. The presenter of the best pitch will win the WMF Pitch Award.

- *Impact of early-life multi-mycotoxin exposure on B cells epigenetic profile and infection by oncogenic viruses: unravelling interaction with immune-regulatory cytokines profiles and co-infections in young children*
Thanos M. Michailidis, Ghent University, Belgium and International Agency for Research on Cancer, France
- *Mycotoxin biomonitoring/exposure and microbiome development in infants*
Kolawole Ayeni, Babcock University, Nigeria
- *Human mycotoxins intervention trial: a standardized protocol*
Lia Visintin, Ghent University, Belgium

17:40 **Presentation of the Pitch Award** by Prof. Chris Elliott

17:45 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

18:15 End of pre-conference

ABOUT THE SPEAKERS

Benedikt Warth

The current research focus of Dr Warth, who is an Associate Professor at the University of Vienna, is in the area of omics-scale exposure assessment and analytical toxicology to better understand the *in vivo* and *in vitro* effects and interactions of environmental and food contaminants.

Beatriz Arce-López

Dr Arce-López holds a PhD in Food Science, Physiology and Health from the University of Navarra in the area of analytical chemistry. Her field of research is human biomonitoring of exposure to mycotoxins.

Mark Sumarah

Dr Sumarah's expertise is in the isolation, structural elucidation, and analysis of small organic molecules from complex matrices using mass spectrometry and NMR. The majority of his research is focused on the development and implementation of better tools using LC-MS for the detection and monitoring of emerging mycotoxins and contaminants.

Lieselot Hemeryck

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

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.

Sarah De Saeger

Prof. De Saeger is head of the Centre of Excellence in Mycotoxicology and Public Health at Ghent University, Belgium. She is coordinator of the international thematic network MYTOX-SOUTH. Her research focuses on mycotoxins and human health, mycotoxin detection methods, metabolomics and untargeted analysis, and exposomics.

Laeticia Celine Toe

As the local principal investigator, Laeticia 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.

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 omics, and regulatory networks to understand human variation and health.

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.

Thanos M. Michailidis

Thanos M. Michailidis is a PhD student at the Centre of Excellence in Mycotoxicology and Public Health, Ghent University, Belgium. The project he is working on, is funded by FWO and is a collaboration with the Epigenetics Group at the International Research Agency for Cancer, France.

Kolawole Ayeni

Ayeni Kolawole is a PhD student and OeAD scholar from Babcock University, Nigeria. He is currently carrying out his PhD research at the University of Vienna, Austria.

Lia Visintin

Lia Visintin is affiliated with the Centre of Excellence in Mycotoxicology and Public Health at Ghent University, Belgium, working as a PhD student on human exposure to mycotoxins in the framework of the ERC project HUMYCO.