



Multidisciplinary approach to strengthen cooperation and establish novel platform for comprehensive assessment of food and feed safety

TRAINING SCHOOL on

Challenges in food and feed safety research:

Advanced analytical strategies for various analyte/matrix combinations for food and feed safety assessment and cumulative risk assessment of food and feed toxicants

PROGRAM

27-29 November 2018

Prague, Czech Republic

Organized by

Department of Food Analysis and Nutrition

University of Chemistry and Technology, Prague, Czech Republic



**UNIVERSITY OF
CHEMISTRY AND TECHNOLOGY
PRAGUE**

Venue: Vienna House Diplomat Prague, room Cracow; Evropska 15, Prague, Czech Republic

Tuesday, 27 November, 2018

9:30-10:00	Registration for the training school and welcome refreshment
10:00-10:30	Welcome and introduction to the MultiCoop Jana Hajslova, University of Chemistry and Technology, Prague, Czech Republic
	Topic: QA/QC
10:30-11:30	Introduction to QA/QC and ISO 17025:2017 accreditation in testing laboratories <ul style="list-style-type: none"> • <i>General requirements on the testing laboratories concerned with food / natural products</i> • <i>Laboratory accreditation - basic principles</i> • <i>Analytical method selection ('fit to purpose'), validation and documentation; performance criteria; traceability and reference materials, QC procedures; interlaboratory comparison</i> • <i>Reporting of results, assessment of the compliance with specification; disputing of results</i> Vladimir Kocourek, University of Chemistry and Technology, Prague, Czech Republic
11:30-12:00	Antibiotics in food production animals - concerns and control strategies Chen Situ, Queens University Belfast, United Kingdom
12:00-13:00	Lunch
	Topic: Step by step strategies for instrumental analytical methods development in food and feed safety assessment
13:00-13:30	Overview of advanced instrumental techniques employed in food and feed analysis Vit Kosek, University of Chemistry and Technology, Prague, Czech Republic
13:30-14:00	Sample preparation strategies <i>Choice of isolation, purification, pre-concentration strategy for analysis of biologically active compounds</i> Darina Lankova, University of Chemistry and Technology, Prague, Czech Republic
14:00-14:30	Separation methods: GC-MS <i>Application potential of GC-MS in food and feed analysis; advantages and limitations</i> Michal Stupak, University of Chemistry and Technology, Prague, Czech Republic
14:30-15:00	Separation methods: LC-MS <i>Application potential of LC-MS in food and feed analysis; advantages and limitations</i> Vojtech Hrbek, Kamila Hurkova, University of Chemistry and Technology, Prague, Czech Republic
15:00-15:30	Coffee break
	Topic: Analytical approaches for food authentication
15:30-16:15	Metabolomic fingerprinting for food authentication Jana Hajslova, University of Chemistry and Technology, Prague, Czech Republic
16:15-17:00	Food fingerprinting to fight fraud Chris Elliott, Queens University Belfast, United Kingdom
17:00-17:30	Innovations in analysis to fight global rice fraud Olivier Chevallier, Queens University Belfast, United Kingdom
From 19:30	Training school Networking event

Wednesday, 28 November, 2018

	Topic: Bioanalytical approaches in food and feed safety assessment
9:00-9:45	Analysis of biological effects of biological active compounds in food Jitka Viktorova & Katerina Augustynkova, University of Chemistry and Technology, Prague, Czech Republic
9:45-10:30	High content analysis Julie Meneely, Queens University Belfast, United Kingdom
10:30-11:00	Coffee break
	Topic: Data analysis
11:00-12:30	Tools for data processing and analyte identification in mass spectrometry based non-targeted analysis Vit Kosek, University of Chemistry and Technology, Prague, Czech Republic
12:30-13:30	Lunch
	Topic: Challenges in mycotoxins analysis
13:30-14:30	International collaborations: the key to detect, control and reduce mycotoxins in the food chain Rudi Krska, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria
14:30-15:00	Detection and elimination strategies of matrix effects in quantitative multi-target LC-ESI-MS/MS analysis David Steiner, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria
15:00-15:30	A suggestion for reducing the workload for validation in multi-mycotoxin analysis Michael Sulyok, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria
15:30-16:00	Coffee break
16:00-16:30	Emerging and masked mycotoxins: Beyond traditionally determined food contaminants Franz Berthiller, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria
16:30-17:00	Towards elucidating the metabolization of DON in larvae of Tenebrionidae (darkling beetles) Gerlinde Wiesenberger, Leonard Mare, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria

Thursday, 29 November, 2018

	Case studies: Analytical strategies in food and feed safety control
9:00-9:20	Determination of cocktail contaminants utilizing U-HPLC-HRMS/MS technique Zbynek Dzuman, University of Chemistry and Technology, Prague, Czech Republic
9:20-9:40	How to determine the impact of food processing on mycotoxins: the fate of deoxynivalenol during baking David Stadler, University of Natural Resources and Life Sciences, Vienna, Tulln, Austria
9:40-10:00	Organophosphate and carbamate pesticides screening: from microplate ChE assays towards a portable smartphone-based analytical platform Aristeidis Tsagkaris, University of Chemistry and Technology, Prague, Czech Republic

10:00-10:20	Strategies for analysis of chlorinated paraffins in food Jakub Tomasko, University of Chemistry and Technology, Prague, Czech Republic
10:20-10:40	Supercritical fluid chromatography as a challenging technique for determination of MCPD esters and glycidyl esters in edible oil Beverly Belkova, University of Chemistry and Technology, Prague, Czech Republic
10:40-11:00	Coffee break
11:00-11:20	Current trends in human biomonitoring Darina Lankova, University of Chemistry and Technology, Prague, Czech Republic
11:20-11:40	Nut and seed butters: assessment of fat composition and quality by standard and advanced methods Michaela Rektorisova, University of Chemistry and Technology, Prague, Czech Republic
11:40-12:00	Determining where innovation is needed: areas in the beef supply chain most vulnerable to food fraud Kelsey Robson, Queens University Belfast, United Kingdom
12:00-12:20	Critical assessment of CBD oils quality Marie Fenclova, University of Chemistry and Technology, Prague, Czech Republic
12:20-12:40	Antibacterial activity of traditional herbal medicine Qiqi He, Queens University Belfast, United Kingdom
12:40-13:15	Course evaluation Course certificates
13:15-14:15	Lunch