



11<sup>th</sup> International Akademie Fresenius Conference

# Pesticide Residues in Food

+++ ONLINE CONFERENCE +++

28 and 29 June 2021

## Highlights

### Analytical Methods and Tools

- Application of new chromatographic strategies in pesticide residue analysis
- Automated pressurised sample extraction in the analysis of difficult matrices
- The Dutch Polar Pesticides Method (NL-PP) for direct analysis of food and feed

### Regulatory Requirements and Guideline Developments

- The New SANTE/2020/12830 Guideline
- ECHA's approach to setting MRLs for biocidal active substances

### Processing Factors

- Prediction of the behaviour of pesticides during food processing
- Interpretation in enforcement cases

### Monitoring: Programmes and Challenges

- The new QuEChERSER mega-method
- EFSA on the 2019 EU annual report on pesticide residues in food

### Human Biomonitoring

- Activities in the HBM4EU project
- Human biomonitoring versus food monitoring
- Strategies for the analysis of pesticide biomarkers



## The Experts

**Michelangelo Anastassiades** EU Reference Laboratory for Pesticides requiring Single Residue Methods (EURL-SRM) | **Helle Raun Andersen** University of Southern Denmark (SDU) | **Monika Bross** BASF | **Luis Carrasco Cabrera** European Food Safety Authority (EFSA) | **Jonatan Dias** Wageningen Food Safety Research | **Francisco José Díaz-Galiano** European Union Reference Laboratory for Pesticide Residues in Fruits and Vegetables (EURL-FV) | **Amadeo Fernández-Alba** European Union Reference Laboratory for Pesticide Residues in Fruits and Vegetables (EURL-FV) | **Juan Francisco García-Reyes** University of Jaén | **Caroline Harris** Exponent | **Jochen Heidler** German Federal Institute for Risk Assessment (BfR) | **Karsten Hohgardt** German Federal Office of Consumer Protection and Food Safety (BVL) | **Arno Kittelmann** German Federal Institute for Risk Assessment (BfR) | **Steven J. Lehotay** USDA Agricultural Research Service | **Britta Michalski** German Federal Institute for Risk Assessment (BfR) | **George Miliadis** Food Allergens Laboratory | **Hans Mol** Wageningen Food Safety Research | **Ionara Pizzutti** Federal University of Santa Maria (UFSM) | **Andreas Schürmann** Cantonal Laboratory of Zurich | **Christian Spangler** BASF

# Monday, 28 June 2021

## Morning Session 10:00 – 13:00 CEST

### Welcome address by Akademie Fresenius and introduction by the Chairs

**Monika Bross**, BASF, Germany

**Caroline Harris**, Exponent, United Kingdom

**Hans Mol**, Wageningen Food Safety Research, The Netherlands

## Analytical Methods and Tools

### The ethylene oxide crisis – causes and response

- Ethylene oxide chemical behaviour
- Ethylene oxide fumigations against bacteria
- Residue situation and risk assessment
- Analytical aspects
- Results of proficiency tests

**Michelangelo Anastasiades**, EU Reference Laboratory for Pesticides requiring Single Residue Methods (EURL-SRM), CVUA Stuttgart, Germany

### Application of new chromatographic strategies for pesticide residue analysis with mass spectrometric techniques

- Possibilities of ion chromatography coupled to LC-MS
- Benefits of supercritical fluid chromatography compared to LC
- Advantages of dual channel chromatography with multi-residue methods

**Amadeo Fernández-Alba**, European Union Reference Laboratory for Pesticide Residues in Fruits and Vegetables (EURL-FV), University of Almería, Spain

### Parameters affecting the determination of phosphine residues in cereals

- Gas pressure, duration of heating and shaking speed
- Loss of residues while standing in the vials
- Validation parameters
- Stability of residues in dried samples

**George Miliadis**, Food Allergens Laboratory, Greece

### Automated pressurised sample extraction as an effective tool in the analysis of difficult matrices

- Demonstration of automated pressurised sample extraction as a viable alternative for manual extraction procedures
- Analysis of traditionally difficult or complex matrices after automated pressurised sample treatment
- Application of these technologies alongside dual channel liquid chromatography

**Francisco José Díaz-Galiano**, European Union Reference Laboratory for Pesticide Residues in Fruits and Vegetables (EURL-FV), University of Almería, Spain

Timings are in  
Central European Summer Time [CEST](#).

### Further improvements on determination of highly polar anionic pesticides in food and feed

- Application of the Dutch Polar Pesticides Method (NL-PP) for direct analysis of polar pesticides in food and feed
- How to overcome retention issues using HILIC columns
- Performance evaluation of the newest HILIC materials

**Jonatan Dias**, Wageningen Food Safety Research, The Netherlands

## Afternoon Session 14:00 – 16:00 CEST

## Monitoring: Programmes and Challenges

### 2019 monitoring results on pesticide residues in food

- Reporting countries
- EU coordinated programme and national monitoring programmes
- Statistics, results and exposure assessments

**Luis Carrasco Cabrera**, European Food Safety Authority (EFSA), Italy

### Pesticide residues monitoring programmes in Brazil

- Brazilian Program for Pesticide Residue Analysis in Food (PARA Program)
- Brazilian National Plan for Control of Residues and Contaminants (PNCRC) on food of plant and animal origin
- Brazilian network of pesticide residue monitoring laboratories

**Ionara Pizzutti**, Centre of Research and Analysis of Residues and Contaminants (CEPARC), Federal University of Santa Maria (UFSM), Brazil

### High-throughput monitoring of pesticides (and other contaminants) in food by the QuEChERSER mega-method

**Steven J. Lehotay**, USDA Agricultural Research Service, United States of America

### How will this online conference work?

Our online conference will be live – with interactive participation – and will be held in the English language. Prior to the conference, we will provide you with your login details which will allow you to participate and ask questions from your preferred location. All you need is a stable internet connection and an audio hardware system – and away you go!

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Information available online at:  
[www.akademie-fresenius.com/2821](http://www.akademie-fresenius.com/2821)

## Morning Session 10:00 – 13:00 CEST

## Afternoon Session 14:00 – 16:30 CEST

### Human Biomonitoring

#### Human biomonitoring (HBM) of pesticides – activities in HBM4EU

- Pesticide exposure and public health
- Advantages and challenges of using HBM for pesticides

**Helle Raun Andersen**, University of Southern Denmark (SDU), Denmark

#### Human biomonitoring as tool for assessment of exposure to pesticides

- Human biomonitoring versus food monitoring
- Strategies for analysis of pesticide biomarkers
- Pesticide biomarkers found in urine, what does it mean?

**Hans Mol**, Wageningen Food Safety Research, The Netherlands

### Regulatory Requirements and Guideline Developments

#### ECHA's approach to setting MRLs for biocidal active substances

- Why do we need an interim approach for MRL setting?
- The different cases
- Responsibilities

**Karsten Hohgardt**, Federal Office of Consumer Protection and Food Safety (BVL), Germany

#### Consolidation of the Analytical Guidance Documents for methods for risk assessment and post-approval control and monitoring purposes – The new SANTE/2020/12830

- Integration of the existing guidance documents for methods for risk assessment and monitoring into one guidance document
- Harmonisation of validation requirements
- Implementation of new data requirements from Regulations EU No. 283/2013 and 284/2013
- Other innovations introduced in the revised analytical guidance document

**Jochen Heidler**, German Federal Institute for Risk Assessment (BfR), Germany

#### Industry view on new SANTE Guidance 2020/12830 and SANTE 2017/10632: Practical experience and open points

**Christian Spangler**, BASF, Germany

### Processing Factors

#### Using processing factors – benefits and limitations

- General introduction to processing factors and processing studies
- Available processing factor databases and ongoing developments
- Benefits and limitations

**Britta Michalski**, German Federal Institute for Risk Assessment (BfR), Germany

#### Prediction of the behaviour of pesticides during food processing based on selected physicochemical properties

- Influence of different process parameters on processing factors
- Prediction of processing factors from selected physicochemical properties
- Examples from juice and wine production

**Arno Kittelmann**, German Federal Institute for Risk Assessment (BfR), Germany

#### Pesticide residues in processed food: Interpretation in enforcement cases

- Exemplary cases of increasing complexity
- Challenges, limitations and workarounds

**Andreas Schürmann**, Cantonal Laboratory of Zurich, Switzerland

#### Determination of pesticide processing factors to assess their behaviour during virgin olive oil production

- Experimental evaluation of pesticides transfer to virgin olive oil during the production step
- Processing factors experimentally calculated were correlated to their octanol-water partitioning coefficient (log K<sub>ow</sub>)
- Estimation of the equivalent MRLs in olive oil from the MRLs in olives

**Juan Francisco García-Reyes**, University of Jaén, Spain

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By email [registration@akademie-fresenius.com](mailto:registration@akademie-fresenius.com)  
By fax +49 231 75896-53

## Participation Fee: € 895.00 plus VAT

Representatives of an authority or a public university are eligible for a reduced fee of € 495.00 plus VAT per person (please provide evidence). The reduced fee cannot be combined with other rebates.

If you are unable to attend the online event, you can order the event documentation for € 295.00 plus VAT. It will be available after the online event through the download area of our website where you will find the latest versions of the presentations as pdf files.

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## Do you have any questions?



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## Who do you meet?

### Professionals working in the fields of:

- ✓ Residue analysis
- ✓ Food chemistry
- ✓ Monitoring
- ✓ Quality assurance and control
- ✓ Product safety
- ✓ Food safety
- ✓ Legal and regulatory affairs
- ✓ Registration
- ✓ Research and development
- ✓ Raw material management

### Sectors taking part:

- ✓ Agrochemical industry
- ✓ Food and drink industry
- ✓ Regulatory authorities
- ✓ Food inspection offices
- ✓ Research institutes
- ✓ Scientific consultants
- ✓ Professional associations

**Terms of Participation and Purchase:** The registration fee includes the participation in the online event and the event documentation for download. You will receive written confirmation of your registration. Upon receiving our invoice, please transfer the amount due without further deductions before the event begins. The price of the event documentation includes access to the secure Akademie Fresenius download area on our website. The secure access code will be dispatched around two weeks after the event and as soon as advance payment has been received.

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