

Assuring the integrity of the food chain: Fighting food fraud



6–7 April 2016 • Prague, Czech Republic

FOODINTEGRITY 2016

PROGRAM

Assuring the integrity of the food chain: FIGHTING FOOD FRAUD FOODINTEGRITY 2016

April 6-7, 2016

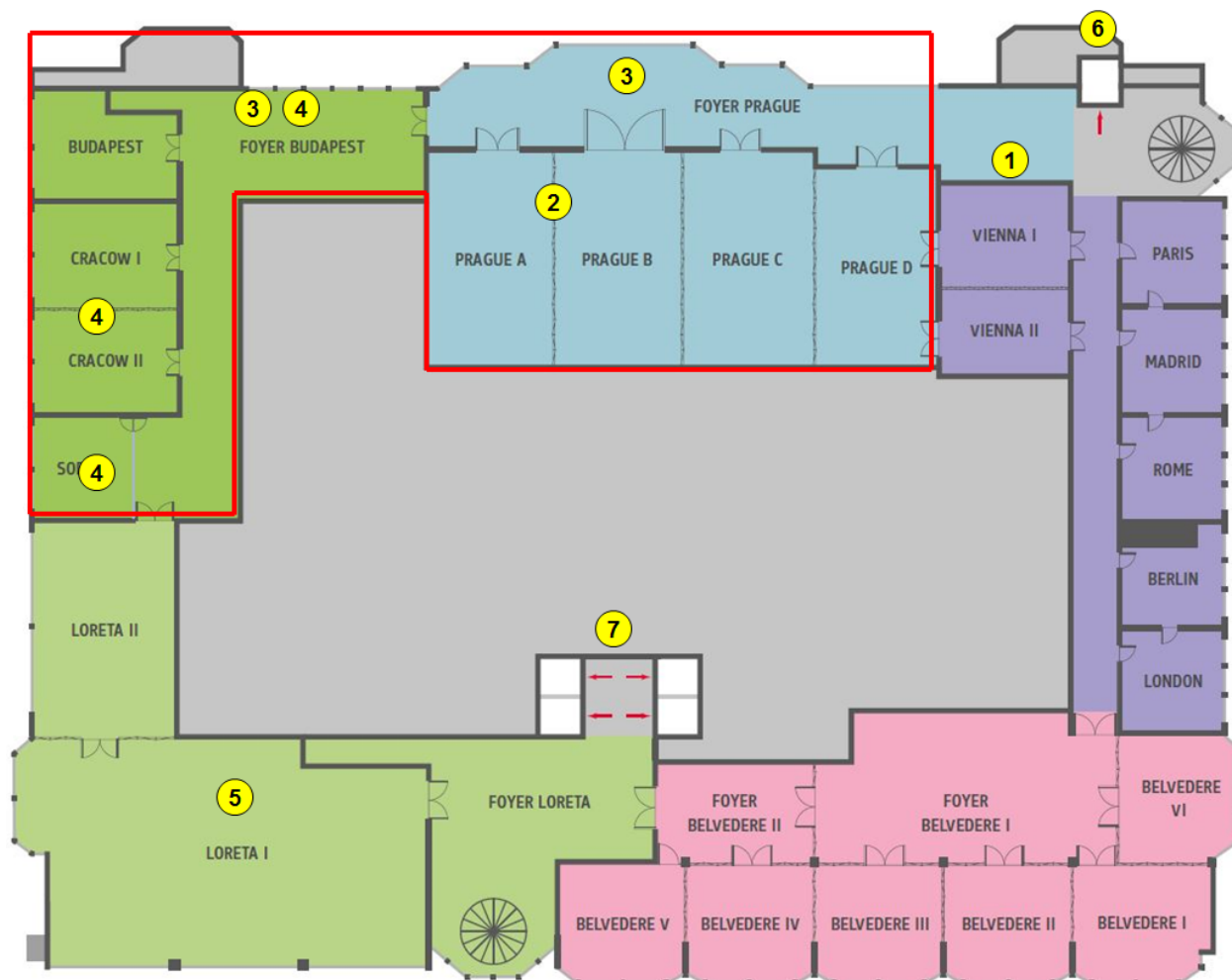
Diplomat Hotel Conference Centre • PRAGUE • CZECH REPUBLIC



Conference is held under auspices of the minister of agriculture of the Czech Republic Marian Jurecka.

FOODINTEGRITY 2016 Venue

Diplomat Hotel Conference Centre



Area bounded by red line is devoted to the FOODINTEGRITY 2016 conference (lecture halls, exhibition and poster area).

- 1: Registration desk
- 2: Conference halls, vendor seminars and parallel workshops
- 3: Exhibition area & Coffee breaks
- 4: Exhibition area & Demonstration activities & Poster area & Coffee breaks
- 5: Conference restaurant (lunches)
- 6: Lift to the exhibition area
- 7: Lifts to the hotel rooms

FOODINTEGRITY 2016 - PROGRAM AT A GLANCE

WEDNESDAY April 6, 2016		THURSDAY April 7, 2016	
Time / Date		Time / Date	
8:00-9:00	Registration for the FOODINTEGRITY 2016 conference	8:00-9:00	Registration for the FOODINTEGRITY 2016 workshops
9:00-9:20	Welcome Introduction to the FoodIntegrity	9:00-10:30	Session 6: Workshop: Food Crime, occurrence, motivations and mitigations (part I)
9:20-10:20	Plenary Session: Integrity along the food chain: Setting the scene		Session 8: Workshop: Industrial perspective for strategies applied for assuring food authenticity (part I)
10:20-10:50	Coffee break / Poster session / Exhibition	10:30-11:00	Coffee break / Poster session / Exhibition
10:50-12:45	Session 1: Gaps in current research on food authenticity: New projects funded by the FoodIntegrity on topics (i) Non targeted analysis (ii) Complex foods (iii) Transparency along the food chain (iv) Rapid methods	11:00-13:00	Session 7: Workshop: Food Crime, occurrence, motivations and mitigations (part II)
12:45-14:30	Lunch / Poster session / Exhibition / Vendor seminars / Demonstration of the approaches for food authentication developed by FoodIntegrity project		Session 9: Workshop: Industrial perspective for strategies applied for assuring food authenticity (part II)
14:30-16:00	Session 2: Citizen and consumer science approaches to food integrity		
	Session 4: Analytical tools for food authentication		
16:00-16:30	Coffee break / Poster session / Exhibition		
16:30-18:00	Session 3: Tools for food integrity assessment		
	Session 5: Authenticity of herbs and spices		
18:00-20:00			
20:00-23:00	Conference dinner Poster award ceremony	13:00-14:00	Lunch

Coffee breaks will be served in the conference area; lunches will be served in the hotel restaurant Loreta.

TUESDAY, April 5, 2016

16:00-18:00

Registration for the FOODINTEGRITY 2016 conference

WEDNESDAY, April 6, 2016

8:00-9:00

Registration for the FOODINTEGRITY 2016 conference

9:00-9:20

Prague A-D
halls

OPENING of the conference and WELCOME

UCT Prague representative

Paul Brereton & Jana Hajslova, Chairs of the FOODINTEGRITY 2016 conference

L1

INTRODUCTION TO THE FOODINTEGRITY

Announcement of the next FOODINTEGRITY conference in 2017

Paul Brereton, Fera Science Ltd, York, UK

9:20-10:20

Prague A-D
halls

PLENARY SESSION:

Integrity along the food chain: Setting the scene

Chairpersons: Chris Elliott (QUB) & Michele Lees (Eurofins)

9:20-9:40

L2

THE IMPACT OF FOOD FRAUD ON CHINA: RISKS AND PREVENTION STRATEGIES

Wu Yongning, China National Center for Food Safety Risk Assessment (CFSA), Beijing, China

9:40-10:00

L3

FOOD AUTHENTICITY: CONSUMER EXPECTATIONS (AND DISAPPOINTMENTS)

Sue Davies, Which?, London, UK

10:00-10:20

L4

NON-TARGETED METHODS: ADVANCES AND CHALLENGES AHEAD

Jeff Moore, US Pharmacopeia, Rockville, United States of America

10:20-10:50

Conference
area

Coffee Break / Exhibition / Poster session

10:50-12:45

Prague A-D
halls

SESSION 1:

Gaps in current research on food authenticity:

New projects funded by FoodIntegrity

Chairpersons: Paul Brereton (Fera Science Ltd) & Saskia van Ruth (WUR)

10:50-12:45

L5-L12

8 presentations on topics on:

- (i) Non targeted analysis
- (ii) Complex foods
- (iii) Transparency along the food chain
- (iv) Rapid methods

Discussion

12:45-14:30

Hotel
restaurant
Loreta

Lunch /

Poster session / Exhibition /

Vendor seminars /

Demonstration of the approaches developed by FoodIntegrity for food authentication

WEDNESDAY, April 6, 2016**13:30-14:20****VENDOR SEMINARS**Prague A&B
hall**Orbitrap technology: the new frontiers in food profiling****ThermoFisher**
S C I E N T I F I CPrague C&D
hall**Ensuring the authenticity of food - New advances in LC-MS/MS
workflows bringing routine closer than ever****13:30-14:30**Cracow &
Sophia halls**POSTER SESSION**

WEDNESDAY, April 6, 2016

13:30-14:30

Foyer
Budapest

Demonstration of the approaches developed by FoodIntegrity for food authentication

HOW TO GET INVOLVED ?

Do you wish to receive information about news, progress and events related to the FoodIntegrity project?

Please **register** for the project **COMMUNICATION** on www.foodintegrity.eu/ page **Contact us**

FoodIntegrity is a European five-year project, which will draw from a well of experience consisting of 38 partners in the EU, China and Iceland to tackle issues surround the authenticity of food. The project will provide a focal point for the sharing and exploitation of European research aimed at protecting the integrity of food production in Europe.

The aim of the FoodIntegrity demonstration is to provide you with a brief update on some of the progress on this multi-faceted project and let you know how you can get involved. We hope you find it useful.

You can join us and discuss with FoodIntegrity experts the latest developments and strategies in the field of food integrity - safety, quality, authenticity and traceability.

WHAT CAN YOU LEARN?



FoodIntegrity Knowledge base: an information resource on food authenticity, description of the database and progress achieved so far

To bring together available information on suitable analytical tools and associated reference data for the detection of food fraud in a Knowledge Base, to facilitate access to this information for industry, regulatory authorities and research organisations



Identifying the gaps in current research on food authenticity



Industrial perspective of relevant food chains vulnerabilities vs Current analytical methods and technologies that can be applied

To bring together available data on industrially exploited analytical tools for detection of food fraud, and identify reliable indicators/markers to use for horizon scanning of possible fraud events



Chinese consumer attitudes to food fraud, short description of the survey and its outcomes

To examine Chinese consumers' attitudes and perceptions towards the safety and integrity of imported European foods



Survey of the Olive oil sector, description of the survey and its outcomes

Sensory analysis of olive oils: Do you recognise adulterated product?



Investigation of available and potential future technologies for authentication of branded spirits and/or categories

"Hands on" demonstration of authentication of spirit drinks



How to reduce product misdescription in the seafood sector?

Fish sampling in restaurants: help us to recognise whether you eat what you have ordered!



Do you wish to participate in the FoodIntegrity events?

Do you wish to be trained in food authentication strategies?

Join us and learn more on opportunities we offer!

WEDNESDAY, April 6, 2016

SESSIONS 2 & 4, in parallel

14:30-16:00
Prague A&B
hall

SESSION 2:
Citizen and consumer science approaches to food integrity
Chairpersons: Sue Davies (Which?) & Moira Dean (QUB)

14:30-15:00 **L13**

**EUROPEAN FOOD AUTHENTICITY AND CHINESE CONSUMERS.
REDUCING CONCERNS ABOUT FOOD SAFETY**
Lynn J. Frewer, Newcastle University, Newcastle Upon Tyne, UK

15:00-15:25 **L14**

**AN OVERVIEW OF THE USE OF CITIZEN SCIENCE, AND LESSONS
FROM THE ENVIRONMENT SECTOR IN THE UK**
Ralph Blaney, WRc, Swindon, UK

15:25-15:50 **L15**

**CITIZEN SCIENCE APPROACH TO IDENTIFYING MISLABELLING IN
THE FISH SECTOR: STUDY DESIGN AND POTENTIAL IMPACT IN
RESTAURANTS**
Miguel Angel Pardo, AZTI, Derio, Spain

15:50-16:00

Discussion - implications for the food sector?

16:00-16:30
Conference
area

Coffee Break / Exhibition / Poster session

SESSIONS 3 & 5, in parallel

16:30-18:00
Prague A&B
hall

SESSION 3:
Tools for food integrity assessment
Chairpersons: Petter Olsen (Nofima) & Christophe Cavin (Nestle)

16:30-16:50 **L16**

**CONCEPTUAL FRAMEWORK FOR AN ONLINE EARLY WARNING
SYSTEM FOR FOOD FRAUD DETECTION**
Vahid Mojtahed, Fera Science Ltd, York, UK

16:50-17:10 **L17**

**DEVELOPMENT OF EARLY WARNING SYSTEMS TO DETECT, PREDICT
AND ASSESS FOOD FRAUD**
Hans Marvin, RIKILT Wageningen UR, The Netherlands

17:10-17:30 **L18**

TRACEABILITY AND BRAND PROTECTION
Espen Braathe, Tracetracker, Oslo, Norway

17:30-17:50 **L19**

**CHECK ORGANIC: ENSURING THE INTEGRITY OF THE ORGANIC FOOD
SUPPLY CHAIN**
Gerald Herrmann, Organic Services GmbH, Tutzing, Germany

17:50-18:00

Discussion

20:00-23:00

Conference dinner
Poster award ceremony
Prague downtown

WEDNESDAY, April 6, 2016

SESSIONS 2 & 4, in parallel

14:30-16:00
Prague C&D
hall

SESSION 4:

Analytical tools for food authentication

Chairpersons: Michele Suman (Barilla) & Begoña Perez Villarreal (AZTI)

14:30-14:50 **L20**

EUROPEAN KNOWLEDGEBASE ON ANALYTICAL METHODOLOGY AND DATABASES FOR FOOD AUTHENTICITY

Michele Lees, Eurofins Analytics France, Nantes, France

14:50-15:10 **L21**

EXPANDING ANALYTICAL CAPABILITIES WITHIN SPIRIT DRINKS AUTHENTICATION

Ian Goodall, The Scotch Whisky Research Institute, Edinburgh, UK

15:10-15:30 **L22**

EMERGING PORTABLE SPECTROSCOPICS FOR NON-DESTRUCTIVE FOOD AUTHENTICATION

Yannick Weesepeel, RIKILT - Wageningen UR, The Netherlands

15:30-15:50 **L23**

AUTHENTICATION OF ORGANIC FRUITS BY THE ANALYSIS OF THEIR MICROBIAL COMMUNITIES: HOW TO PREVENT ORGANIC FRUIT FRAUD? APPLICATION OF A ROBUST APPROACH

Didier Montet, CIRAD-UMR Qualisud, Montpellier Cedex 5, France

15:50-16:00

Discussion

16:00-16:30
Conference
area

Coffee Break / Exhibition / Poster session

SESSIONS 3 & 5, in parallel

16:30-18:00
Prague C&D
hall

SESSION 5:

Authenticity of herbs and spices

Chairpersons: Carsten Fauhl-Hassek (BfR) & Rebecca Kokkinofa (SGL)

16:30-16:50 **L24**

AUTHENTICATION OF SPICES AND HERBS

Carsten Fauhl-Hassek, Federal Institute for Risk Assessment, Berlin, Germany

16:50-17:10 **L25**

A SENSE OF 'SPICED': PEPPER AND NUTMEG AUTHENTICATION

Saskia van Ruth, Wageningen UR, The Netherlands

17:10-17:30 **L26**

HIGH RESOLUTION MASS SPECTROMETRY BASED METABOLOMIC FINGERPRINTING, AN EFFICIENT TOOL TO DETECT FRAUD ON HERBS AND SPICES: CASE STUDIES

Jana Hajslova, University of Chemistry and Technology, Prague, Czech Republic

17:30-17:50 **L27**

ADULTERATION OF HERBS: THE OREGANO STORY

Simon Haughey, Institute for Global Food Security, Queen's University, Belfast, UK

17:50-18:00

Discussion

20:00-23:00

Conference dinner

Poster award ceremony

Prague downtown

Session: Authenticity of herbs and spices

Spices and herbs, condiments, are contained in almost every processed food, including ready-to-eat products, and are used in restaurants and by the consumer for flavouring purposes of food. The EU market is one of the largest markets for spices and herbs in the world. The spices most often consumed in the EU are pepper, paprika and pimento; whereas the most often consumed herbs are thyme and oregano. Only a few spices are produced within the EU – mainly paprika of which the main producers are Hungary and Romania.

Herbs and particularly spices have always been highly-priced commodities and are therefore subject to several adulterations. By economic reasons, fraudsters are mixing cheap material with the high-priced spices. Ungrounded spices are rarely falsified, but confusion with similar plants or fruits is possible. Grounded spices can easily be falsified, e.g. by colouring with forbidden dying agents such as lead oxide or Sudan red or by stretching the products with filling material like sand or starch. The history of fraud in relation to spices and herbs is long and ongoing, as new examples such as the falsification of oregano with olive leaves most recently observed in UK show.

The authenticity testing of spices and herbs was and still is therefore subject of several European research projects and other studies. Because the classical approaches for assessing authenticity suffer from a number of disadvantages, namely, the increasing number of analytes, which must be introduced in dedicated test procedures, the limited knowledge of the “normal” composition of materials and most importantly their incapacity to detect unforeseen agents, one focus of current research activities points on non-targeted analytical techniques (fingerprinting techniques) to investigate any kind of distinctive features. The workshop will present results related to new authentication approaches to condiments and will provide an insight into future, rapid and cost-effective, approaches for quality and safety control of spices and herbs.

THURSDAY, April 7, 2016

8:00-9:00

Registration for the FOODINTEGRITY 2016 workshops

SESSIONS 6 & 8, in parallel

9:00-10:30
Prague A&B
hall

SESSION 6: Workshop on Food Crime, occurrence, motivations and mitigations (part I)

Moderator: Jon Spencer, University of Manchester, UK

9:00-9:20 L28

THE MODELING OF FOOD SUPPLY TO ASSIST FRAUD DETECTION

Cecilia Flores & David Allen, University of Manchester, Manchester, UK

9:20-9:40 L29

CORPORATE CRIME IN THE MEAT SUPPLY CHAIN

Wim Huisman, VU University, Amsterdam, the Netherlands

9:40-10:00 L30

DUTCH PIG FARMERS: NON-COMPLIANCE IN CONTEXT

Fiore Geelhoed, VU University, Amsterdam, the Netherlands

10:00-10:20 L31

BRIDGING THE GAP - A CRIMINAL INTELLIGENCE PERSPECTIVE ON FOOD CRIME

Andy Morling, Food Standards Agency: England and Wales, UK

10:20-10:30

Discussion

10:30-11:00
Conference
area

Coffee Break / Exhibition / Poster session

SESSIONS 7 & 9, in parallel

11:00-13:00
Prague A&B
hall

SESSION 7: Workshop on Food Crime, occurrence, motivations and mitigations (part II)

Moderator: Andy Morling, Food Standards Agency, UK

11:00-11:15 L32

FOOD FRAUD PREVENTION: POLICY, STRATEGY, AND DECISION- MAKING - IMPLEMENTATION STEPS FOR A GOVERNMENT AGENCY OR INDUSTRY - INCLUDING TRANSLATION TO CHINESE

John Spink, Michigan State University, USA

11:15-11:30 L33

CRIMES AND HARMS IN THE MEAT INDUSTRY

Loes Kersten, KU Leuven, Leuven, Belgium

11:30-11:45 L34

CRIMINOLOGICAL APPROACHES TO FOOD FRAUD

Jon Spencer, University of Manchester, Manchester, UK

11:45-12:00 L35

THE ROLE OF THE REGULATOR

Peter Whelan, Food Safety Authority: Ireland, Ireland

12:00-13:00

Discussion

13:00-14:00
Hotel
restaurant
Loreta

Lunch

Workshop: Food Crime, occurrence, motivations and mitigations

Workshop Aims and Objectives

There has been a significant increase in the social science research into Food Crime over the past four or five years and it brings together diverse disciplines. The science of fraud detection has relied on new methods of testing and increased levels of audit. This scientific work has a social dimension and the development of a theoretical criminological approach to understanding food crime is innovative and exciting. However, the detection food fraud happens 'after the event' of fraud or adulteration, testing identifies the adulterated product.

The aim of this workshop is to bring together criminologists and social scientists working in the area of food crime with those working in the food industry to explore the activity of food crime from different perspectives.

The objectives of the workshop are to:

- i. Provide a number of different papers that discuss the issue of food crime from a range of perspectives and contribute to the developing theoretical framework to aid our understanding of food crime
- ii. To explore the different perspectives of the Social Sciences and how they enhance our understanding of food crime
- iii. Encourage and aid discussion and identify the emerging issues in the area

Workshop Format

The workshop will be structured around two elements. First, there will be a series of short presentations that will consider the 'state of the art' of what we know about food crime. These papers will draw on current research and practice. There will be time for discussion of each presentation. There will be a discussant for the session that will assist in identifying the knowledge gaps and stimulate discussion as to how these gaps might be addressed.

The second part of the workshop will focus on developing scenarios of future food crime issues. This will be structured using a roundtable of experts drawn from industry, academia and regulation to consider future food crime scenarios. This approach begins to address one of the key issues in the food crime area, which is the ubiquity of food frauds and adulteration. Scenario planning may assist us in further understanding the interaction between a numbers of competing dynamics within the food crime area that will aid prevention.

THURSDAY, April 7, 2016

8:00-9:00

Registration for the FOODINTEGRITY 2016 workshops

SESSIONS 6 & 8, in parallel

9:00-10:30
Prague C&D
hall

SESSION 8: Workshop on Industrial perspective for strategies applied for assuring food authenticity (part I)

How to improve protection from food frauds and adulterations

Moderator: Michele Suman, Barilla, Parma, Italy

9:00-9:10 L36

OVERVIEW OF CURRENT RESEARCH AND PRACTICAL OUTCOMES OF FOODINTEGRITY PROJECT

Michele Suman, Barilla SpA - Advanced Laboratory Research, Parma, Italy

9:10-9:20 L37

USING THE FOODINTEGRITY NETWORK & THE FOOD INTEGRITY KNOWLEDGE BASE

Michele Lees, Eurofins Analytics France, Nantes, France

9:20-9:30 L38

RAPID METHODS PERSPECTIVES (FOCUS ON THE SPIRIT DRINK SECTOR)

Shona Glancy, The Scotch Whisky Research Institute, Edinburgh, UK

9:30-9:40 L39

Cancelled

9:40-9:50 L40

1H-NMR NON-TARGETED DETECTION OF ADULTERANTS IN VEGETABLE OIL

James Donarski, Fera Science Ltd, York, UK

9:50-10:00 L41

SPECTROSCOPIC TECHNOLOGIES AND APPLICATIONS FOR AUTHENTICATION & ANTI-COUNTERFEITING

Neville Davies, Ocean Optics, Duiven, the Netherlands

10:00-10:10 L42

INDUSTRIAL SELF-CONTROL IN THE FRUIT JUICE INDUSTRY: A MODEL FOR OTHER FOOD INDUSTRY SECTORS

Aintzane Esturo, SGF International, Nieder-Olm, Germany

10:10-10:20 L43

HONEY IDENTITY: NEW APPROACHES TO THE BOTANICAL ORIGIN OF HONEY BY NEXT GENERATION SEQUENCING

Maria Teresa Barreto Crespo, iBET, Oeiras, Portugal

10:20-10:30 L44

THE USE OF STABLE ISOTOPES FOR MONITORING OF PRODUCTS CLAIMING REGIONAL ORIGIN. A PROOF OF CONCEPT

Markus Boner, Agroislab GmbH, Jülich, Germany

10:30-11:00
Conference
area

Coffee Break / Exhibition / Poster session

SESSIONS 7 & 9, in parallel

11:00-13:00

Prague C&D
hall**SESSION 9: Workshop on
Industrial perspective for strategies applied for assuring food
authenticity (part II)**

How to improve protection from food frauds and adulterations

Moderator: Michele Suman, Barilla, Parma, Italy

11:00-13:00

*An interactive team working exercise among the participants to address
future scenarios related to:*

- (i) Fragmentation of the chains,*
- (ii) Effective rapid screening approaches,*
- (iii) Confirmatory analytical strategies,*
- (iv) Assessments and prevention models*

13:00-14:00

Hotel restaurant Loreta

Lunch

Workshop: Industrial Applications for Assuring Food Authenticity (HOW TO IMPROVE PROTECTION FROM FOOD FRAUDS AND ADULTERATIONS)

Workshop Aims and Objectives

European food is of prime importance to the European Agri-food economy.

The authenticity of European food and the integrity of supply chains is under constant threat from fraudulent activities.

The topic of assuring the integrity of the food chain brings together producers, distributors, processors, retailers, regulators, researchers, enforcers and consumers.

The present workshop will be an opportunity for all these stakeholders to raise their awareness of food authenticity issues and get together in order to achieve the following objectives:

- i. Share common relevant issues combined with best practices, enlarging the existing network and boosting exchange and collaboration
- ii. Allow open and constructive discussions on how current research is expected to develop practical mitigation solutions for companies to use to protect themselves from food fraud
- iii. Review all the relevant activities and tools that FoodIntegrity project has already made available and/or is developing for the industry (e.g. FI Network, FI Knowledge Base,...)

Workshop Format

The first part of the workshop will be devoted to have a series of short talks that will consider the 'state of the art' achieved from the FoodIntegrity project on the industrial side, together with stimulus and good practices provided directly from industrial player presenters from different points of the food chain.

At the end of each presentation, a moderator of the session will assist in identifying the knowledge gaps and stimulate discussion as to how these gaps might be addressed.

The second part of the workshop will be dedicated to an interactive team working exercise among the participants to address future scenarios related to: (i) fragmentation of the chains, (ii) effective rapid screening approaches, (iii) confirmatory analytical strategies, (iv) assessments and prevention models.

POSTER SESSION

WEDNESDAY - THURSDAY, April 6-7, 2016

13:00-14:30 **POSTER SESSION (Wednesday, April 6, 2016)**

Posters are displayed during the whole conference.

- P1** DETERMINATION OF PRIORITIES BY THE MANUFACTURER FOR FRAUD PROCESSED MEAT PRODUCTS, IN TURKEY
Alev Akpınar Borazan
- P2** METROFOOD-RI: A NEW PAN-EU RESEARCH INFRASTRUCTURE TO SUPPORT FOOD INTEGRITY
Giovanna Zappa, Claudia Zoani, Isabel Castanheira
- P3** ADVANCES IN TOOLS TO SUPPORT FOOD FRAUD VULNERABILITY ASSESSMENT AND RISK MITIGATION
Karen Everstine, Jeffrey Moore, Henry Chin, Shaun Kennedy
- P4** FOOD FRAUD PREVENTION GUIDE FOR AGRIFOOD SECTOR. AN INTEGRITY ASSESSMENT TOOL FOR APPLIED STRATEGIES IN ORDER TO ASSURE FOOD AUTHENTICITY
Catherine Vidal, Gloria Cugat, Adriana Fernandez, Montserrat Sibera, Rosa Maria Biel
- P5** MULTIDISCIPLINARY APPROACH FOR FOOD FRAUD DETECTION
Leo van Raamsdonk
- P6** THE VIRTUAL FOOD AUTHENTICITY NETWORK
Selvarani Elahi, Stephen Ellison, Mark Woolfe, Michelle McQuillan, Lucy Foster, Sophie Rollinson
- P7** ARE THEY AT RISK AND DO THEY KNOW? FOOD SAFETY KNOWLEDGE OF POULTRY MEAT CONSUMERS IN SLOVENIA
Sonja Smole Možina, Meta Sterniša, Špela Zorko, Sonja Levstek, Andreja Kukec, Mojca Jevšnik, Peter Raspor
- P8** BIG DATA FROM A SMALL LAB: COMPLETE HOLISTIC/NON TARGETED/FINGERPRINTING OVERVIEW USING ALTERNATIVE INSTRUMENTAL APPROACH FOR FOOD AUTHENTICATION AND FRAUD PREVENTION
Roberto Piro
- P9** MAPPING THE BEEF SUPPLY CHAIN FROM FARM TO FORK FOR TRANSPARENCY
Stephanie Brooks, Christine Walsh, Michelle Spence, Christopher Elliott, Moira Dean
- P10** REAL-TIME PCR FOR SALMON IDENTIFICATION
Amanda Naaum, Robert Hanner
- P11** APPLICATIONS OF VIBRATIONAL SPECTROSCOPY FOR FEED SAFETY CONTROL: DETECTION OF ANIMAL ORIGIN MATERIAL BY NIR AND RAMAN SPECTROSCOPY
Luisa Mandrile, Giuseppina Amato, Daniela Marchis, Gianmario Martra, Andrea Mario Rossi
- P12** PEPTIDE PROFILES AS NOVEL AND HIGHLY SENSITIVE MARKERS FOR THE HEAT TREATMENT OF MILK
Sevim Dalabasmaz, Monika Pischetsrieder
- P13** GC-MS DETERMINATION OF CYCLOPROPANE FATTY ACIDS: A NEW TOOL AGAINST PARMIGIANO REGGIANO COUNTERFEIT
Angela Marseglia, Marco Nocetti, Veronica Lolli, Gerardo Palla, Augusta Caligiani
- P14** MINIATURIZED NIRS FOR NON-DESTRUCTIVE AUTHENTICATION OF PACKAGED CHICKEN FILLETS
Yannick Weesepoel, Saskia van Ruth
- P15** VALIDATION CRITERIA FOR SIMULTANEOUS MULTI COMPONENT QUANTITATIVE NMR ANALYSIS AND NMR FINGERPRINTING METHODS
Vito Gallo, Piero Mastroianni, Mario Latronico, Pasquale Scapicchio, Nicola Intini, Antonino Rizzuti

- P16 NEW IMMUNOASSAYS FOR MAJOR MILK FRAUD**
 Willem Haasnoot, Lucia Streppel, Ana Frangolho, Claus Schafer-Nielsen, Sotirios Kakabakos
- P17 FREE RANGE FRAUD: HOW MODERN ANALYTICAL TECHNIQUES CAN BE USED IN CONJUNCTION WITH AGRICULTURAL EXPERTISE TO AUTHENTICATE FREE RANGE AND ORGANIC EGG PRODUCTION**
 Alison Johnson, Robert Posey
- P18 SCREENING AND IDENTIFICATION OF FOOD SUPPLEMENT ADULTERANTS USING LIQUID CHROMATOGRAPHY WITH HIGH-RESOLUTION MASS SPECTROMETRY**
 Katerina Mastovska, Lukas Vaclavik, John R. Schmitz, Jean-Francois Halbardier
- P19 FRAUD DETECTION IN MARINE PRODUCTS WITH MOLECULAR ANALYSIS TECHNIQUES. A CASE STUDY IN ELASMOBRANCHII**
Anastasia Imsiridou, Styliani Maradidou, Dimitrios Loukovitis, George Minos
- P20 TACKLING FISH FRAUDS: STRATEGIES TO DISTINGUISH FRESH FROM FROZEN FISHERY PRODUCTS**
 Elena Bozzetta, Serena Meistro, Mario Botta, Daniela Meloni, Fabio Olivo, Marzia Pezzolato, Pierluigi Acutis, Elisa Baioni
- P21 C-SNIF-NMR - A COMPLEMENTARY TOOL IN FOOD AUTHENTICITY CONTROL**
 Freddy Thomas, Eric Jamin, Michele Lees
- P22 SENSITIVE DETECTION OF ECONOMICALLY MOTIVATED ADULTERATION OF HONEY BY BULK AND COMPOUND SPECIFIC C ISOTOPE RATIO MASS SPECTROMETRY USING LIQUID CHROMATOGRAPHY AND ELEMENTAL ANALYSIS INLET DEVICES**
Jens Griep-Raming, Dieter Juchelka, Andreas Hilkert
- P23 HONEY-PROFILING™ - TAKING AUTHENTICITY TESTING TO THE NEXT LEVEL**
Arne Duebecke, Jane Missler, Cord Luellmann, Gudrun Beckh
- P24 THE USE OF THE SR/SR ISOTOPE RATIO MASS SPECTROMETRY (TIMS) TO AUTHENTICATE TOMATO ORIGIN: A CASE STUDY**
Claudio Baffi, Pier Renato Trincerini
- P25 FATTY ACID COMPOSITION AND δC ISOTOPIC RATIO CHARACTERIZATION OF PUMPKIN SEED OIL**
Tanja Potočnik, Iztok Jože Košir, Doris Potočnik, Nives Ogrinc
- P26 PDO PARMIGIANO REGGIANO CHEESE: NON TARGET MASS SPECTROMETRY, CHEMOMETRICS AND THE FUTURE PATH TO DETECT FRAUD**
 Emiliano De Dominicis, Mario Dante, Bert Popping, Marco Nocetti
- P27 STABLE ISOTOPES AS TRACERS OF GEOGRAPHIC ORIGIN OF PLANT SEEDS AND OILS**
Cristina Máguas, Rodrigo Maia, Carla Isabel Rodrigues, Tatiana Gomes, Cristina Antunes, Catarina Costa, Otilia Correia, Margarida Santos Reis, Cristina Branquinho, Pedro Pinho, Maria João Pereira, Hamid Marah, Taous Fouad
- P28 IMPLEMENTING MULTI-ELEMENT AND ISOTOPIC FINGERPRINTING AS TOOL FOR FOOD AUTHENTICATION IN AUSTRIA: SCIENTIFIC BACKGROUND, POTENTIAL AND RELEVANT LEGAL ASPECTS**
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