



FOODINTEGRITY

Ensuring the Integrity of the European food chain

**CALL
for participation in the
FoodIntegrity
TRAINING PROGRAM**

www.foodintegrity.eu



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Disclaimer: *The information expressed in this deliverable reflects the authors' views; the European Commission is not liable for the information contained therein.*

TRAINING PROGRAM:

Various short-term and long-term training and education activities at different levels are planned, in order to establish a European basis for permanent education in the field of food integrity.

- ⇒ **Young scientist mobility** both within the project consortium and involving members of the training network, with the aim both to help in capacity building of young researchers and assist in the transfer of knowledge within the project consortium
- ⇒ **e-learning** interactive tool(s)/webinar(s) to support worldwide knowledge dissemination to the community not involved directly in the training network
- ⇒ **Workshops** (during 2018, dates will be announced)
- ⇒ **Training school** (summer 2018, dates will be announced), in conjunction with the conference for post-graduate students

Focused on advanced analytical methodologies, traceability and consumers' issues related to the food integrity aspects, aimed at knowledge transfer to the community of professionals, associations, industry and other potential end-users

- ⇒ Development of **TRAINING NETWORK**

2 steps training approach („train the trainer“)

Phase I: Future trainers will be trained

- To develop a training program for interested stakeholders
- To provide training to all interested stakeholders via various training tools

Phase II: Trained trainers will organize targeted training either at organisation, national level for scientists, academia, researchers, control labs etc. (via hands on, one-to-one, training course,...) or for European industrial/ professional organisations

WHO CAN APPLY?

- FoodIntegrity consortium members
- External participants (scientists and other stakeholders)

WHAT IS THE DEADLINE?

- Call for applications will launch in the week from 6 November and will last until 30 November 2017, 17:00 (CET)

HOW TO APPLY?

- **CV and Application Form to be submitted to monika.tomaniova@vscht.cz**
- Apply using the form accessible from the FoodIntegrity website (www.foodintegrity.eu)
- CV preferred format can be found here:
<http://europass.cedefop.europa.eu/documents/curriculum-vitae/templates-instructions>

SELECTION PROCEDURE / CRITERIA TO BE MET:

- Application form to be completed to get appropriate information from potential trainees (any trainee can participate only in one training)
- Sustainability to be assured (please fill in respective part of the Application form)

Trainees = future trainers. Therefore, the applicant should document the potential to organise follow/up training targeted for various stakeholders groups

Stakeholders: scientists, academia, researchers, control labs etc., via hands on, one-to-one, training course, ..., or for European industrial / professional organisations

BUDGET FOR TRAINING:

- 55 000 € is allocated to cover travel costs for trainees
1-2 weeks, can be funded up to 1 000 € for trainees from Europe, 1 500 € for trainees outside of Europe
- 10 000 € is allocated to cover young scientists mobility
1-3 months, can be funded up to 2 000 €/person

Who are the TRAINERS?

Well established experts' institutes will act as key trainers' centres and also contribute to preparation of other training materials:

- IAEA/FAO, Vienna, Austria
- CRA-W, Gembloux, Belgium
- RIKILT, Wageningen UR, The Netherlands
- QUB, Belfast, UK
- UCT Prague, Prague, Czech Republic
- FiBL, Switzerland
- FERA, York, UK
- BfR, Berlin, Germany
- NOFIMA, Tromsø, Norway
- Barrila, Parma, Italy

OFFERS FOR TRAINING

Name of the organisation:	IAEA/FAO
Web address	http://www.iaea.org
Specific expertise of the organisation relevant to the FoodIntegrity project:	Stable isotope measurements and metabolomics for integrity testing (for food authenticity, safety and to support food traceability systems)

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Stable isotopes for verifying authenticity of food
Brief description of a training content:	An application of stable isotope (H, C and N) analysis using honey as an example food. Training will include sample preparation, analysis, data work up and interpretation.
Duration (days):	5
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	10 (5 trainees for each technique)
Venue of the training:	IAEA/FAO, Seibersdorf, Austria

Specification of the training offer related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Metabolomics for verifying authenticity of food
Brief description of a training content:	An application of metabolomics analysis by high resolution mass spectrometry and MVA using honey as an example food. Training will include sample preparation, analysis, data work up and interpretation.
Duration (days):	5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	5
Venue of the training:	IAEA/FAO, Seibersdorf, Austria

Name of the organisation:	Walloon Agricultural Research Centre
Web address	http://www.cra.wallonie.be
Specific expertise of the organisation relevant to the FoodIntegrity project:	Spectroscopy (Visible, NIR, MIR, Raman, Fluo) Optical and NIR microscopy Chemometrics: unsupervised and supervised multivariate analysis

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Vibrational spectroscopy and chemometrics
Brief description of a training content:	Complete overview of the theory of the spectroscopic and chemometric methods and practical sessions in food, feed, milk laboratories
Duration (days):	4 days
Starting date - month(s) of the project:	February – March 2018
Capacity (no. of trainees):	1 trainee from the FoodIntegrity project
Venue of the training:	CRA-W, Gembloux, Belgium

Specification of the YOUNG SCIENTISTS mobility offered in the area related to the project activities	
Title of the training:	Vibrational spectroscopic methods applied on cereals
Brief description of a training content:	Application of vibrational spectroscopic methods (MIR, Raman) for cereal authentication
Duration (days):	3 months
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	1 trainee
Venue of the mobility:	CRA-W, Gembloux, Belgium

Name of the organisation:	RIKILT Wageningen UR
Web address	http://www.wur.nl
Specific expertise of the organisation relevant to the FoodIntegrity project:	Food authenticity and fraud research in general

Specification of the YOUNG SCIENTISTS mobility offered in the area related to the project activities	
Title of the training:	Food fraud vulnerability assessments
Brief description of a training content:	On the job training of the assessment of the vulnerability of companies to fraud and across chains
Duration (days):	1-3 months
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	1 trainee
Venue of the mobility:	Wageningen UR, Wageningen, the Netherlands

Name of the organisation:	Queens University Belfast
Web address	http://www.qub.ac.uk
Specific expertise of the organisation relevant to the FoodIntegrity project:	Food Quality and Safety / Analytical Methods

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Foodomics: Untargeted Analysis of Foods
Brief description of a training content:	Application of QToF-MS to the untargeted analysis of foods including experimental design, extraction techniques, QToF-MS analysis and data processing.
Duration (days):	1.5-2 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	5
Venue of the training:	QUB, Belfast, UK

Name of the organisation:	University of Chemistry and Technology, Prague
Web address	http://uapv.vscht.cz/
Specific expertise of the organisation relevant to the FoodIntegrity project:	<p>Food & feed safety and quality assessment, authentication of food products by advanced analytical technologies</p> <p>Both conventional and high-end GC and LC platforms are available from number producers; the systems are equipped by following mass analyzers:</p> <p>GC-MS: single Q, QqQ, ITD, Q-HRTOF, HRTOF GCxGC-MS: TOF</p> <p>LC-MS: QQQ, HRTOF, Orbitrap, Q-Orbitrap, QTOF with ion mobility</p> <p>SFC-MS: Q-HRTOF with ion mobility</p> <p>Ambient MS: DART ion sources coupled OrbitrapMS</p>

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Metabolomic fingerprinting / profiling based on high resolution mass spectrometry for food, nutraceuticals & feed authentication
Brief description of a training content:	<p>Application GC & LC-MS for untargeted analysis / omics, employing fingerprinting / profiling strategies to authenticate e.g. olive oils and other edible oils/fats, spices, botanicals and herbs, dietary supplements, wine, spirit drinks.</p> <p>Training will cover experimental design, demonstration of various instrumental applications (hands-on), data processing and interpretation, validation and QA issues.</p>
Duration (days):	Up to 5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	3
Venue of the training:	UCT Prague, Department of Food Analysis and Nutrition, Prague, Czech Republic

Specification of the YOUNG SCIENTISTS mobility offered in the area related to the project activities	
Title of the training:	The power of tandem high resolution mass spectrometry in food, natural products and feed authentication
Brief description of a training content:	Application GC & LC-MS for untargeted analysis / omics, employing fingerprinting / profiling strategies to authenticate e.g. olive oils and other edible oils/fats,

	spices, botanicals and herbs, dietary supplements, wine, spirit drinks. Training (case studies) will cover experimental design, demonstration of various instrumental applications (hands-on), data processing and interpretation, validation and QA issues.
Duration (days):	1 month
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	1 trainee
Venue of the mobility:	UCT Prague, Department of Food Analysis and Nutrition, Prague, Czech Republic

Name of the organisation:	Fera Science Ltd
Web address	http://fera.co.uk/
Specific expertise of the organisation relevant to the FoodIntegrity project:	IRMS (Fruit Juice and Wine) & NMR (Honey) UK NRL for wine analysis by SNIF-NMR and IRMS

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	IRMS – Theory and lab fruit juice and wine
Brief description of a training content:	EU uses of IRMS sand SNIF-NMR for fruit Juice and wine authentication
Duration (days):	5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	6
Venue of the training:	Fera Science Ltd, Agri Food Innovation Campus, York, UK

Specification of the training offered related to 'COMMODITY CONCEPT'	
Title of the training:	Profiling with applications to honey
Brief description of a training content:	Targeted and Non Targeted Profiling of Honey using a range of analytical techniques
Duration (days):	5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	6
Venue of the training:	Fera Science Ltd, Agri Food Innovation Campus, York, UK

Name of the organisation:	Federal Institute for Risk Assessment (BfR)
Web address	http://www.bfr.bund.de
Specific expertise of the organisation relevant to the FoodIntegrity project:	Authentication of food commodities by NMR, FT-IR, GC-MS and IRMS

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	FT-IR spectroscopy for authentication of food
Brief description of a training content:	<ul style="list-style-type: none"> • Application of FT-IR spectroscopy for authentication of food/feed matrices (e.g edible oils, spices, animal feed). • Use of the technique for detection of adulteration issues (mineral oil in edible oils; dyes in paprika powder). • Training covers preparation techniques, devices for different sample types and hands-on instrument experience. • Validation and quality assurance for FT-IR analysis • Participants will be introduced to chemometric data analysis both in theory and practice using different software packages.
Duration (days):	5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	4
Venue of the training:	BfR, Berlin, Germany

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Stable isotope analysis of wine
Brief description of a training content:	Stable isotope analysis for wine authentication by NMR and IRMS Training covers: <ul style="list-style-type: none"> • Sample preparation technique: Wine distillation • ²H SNIF-NMR of wine • ¹³C of wine alcohol and ¹⁸O of wine water • Validation and quality assurance of stable isotope analysis
Duration (days):	5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	4
Venue of the training:	BfR, Berlin, Germany

Name of the organisation:	Barilla SpA
Web address	http://www.barilla.com
Specific expertise of the organisation relevant to the FoodIntegrity project:	Food chemistry-microbiology-processing & technology, Industrial Management

Specification of the training offered related to 'ANALYTICAL METHODOLOGY CONCEPT'	
Title of the training :	Analytical tools for authenticity of raw materials in pasta, sauces & bakery production
Brief description of a training content:	Examples of rapid methods and/or confirmatory analytical techniques to determine the authenticity of raw materials (such as wheat, tomatoes, eggs,...) for bakeries and/or sauces/pasta industrial production
Duration (days):	5 days (1 work-week)
Starting date - month(s) of the project:	February 2018
Capacity (no. of trainees):	Up to 10 (<i>can be organised alone</i>)
Venue of the training:	Barilla SpA Headquarter, Parma, Italy, and/or University of Parma-Siteia, Parma, Italy

Specification of the training offered related to 'OTHER CONCEPTS'	
Title of the training:	'REGULATORY & RISK ASSESSMENT CONCEPT' Frauds & adulterations management in strategic raw materials for pasta, sauces & bakery products
Brief description of a training content:	Technical regulatory and risk assessment along the food chains for evaluating the exposure of main raw materials (such as wheat, tomatoes, eggs,...) for bakeries, sauces and pasta industrial production
Duration (days):	1-2 days
Starting date - month(s) of the project:	February 2018
Capacity (no. of trainees):	Up to 10 (<i>both trainings should be combined together in an entire overall week</i>)
Venue of the training:	Barilla SpA Headquarter, Parma, Italy
Title of the training:	'SENSORY & MANAGEMENT CONCEPTS' Consumers science & Industrial management skills useful to assure food integrity
Brief description of a training content:	Appropriate methods for tasting the products and overview of the benefits that the use of Sensory Analysis brings to food products and their marketing. Parallel management program, which could include (depending on the effective availability along the 2017 calendar training of Barilla Learning & Development

	Centre): effective communication, problem solving & decision making, leadership behaviour, time management, presentation skills
Duration (days):	3-4 days
Ideal Period:	Autumn 2017
Capacity (no. of trainees):	Up to 10 (<i>both trainings should be combined together in an entire overall week</i>)
Venue of the training:	Barilla SpA Headquarter, Parma, Italy

Specification of the YOUNG SCIENTISTS mobility offered in the area related to the project activities	
Title of the training:	Rapid tools for food integrity: testing on the field
Brief description of a training content:	<p>Testing on the field of rapid methods in terms of cost-effectiveness for the quantitation of frauds and authenticity markers.</p> <p>Validation and definition of acceptable performance criteria at industrial level for defined frauds and authenticity parameters monitoring, from raw material suppliers to food producers and consumers.</p> <p><i>Method(s) to be tested/validated can be agreed</i></p>
Duration (days):	Up to 2-3 months
Starting date - month(s) of the project:	February 2018
Capacity (no. of trainees):	1 trainee
Venue of the mobility:	Up to 2

Name of the organisation:	Research Institute of Organic Agriculture FiBL
Web address	http://www.fibl.org
Specific expertise of the organisation relevant to the FoodIntegrity project:	Knowledge transfer, elaboration of concepts, scientific support and networking of stakeholders; consumer behavior and qualitative and quantitative methods of marketing research; internet platforms and database systems for food and feed tracing

Specification of the training offered related to 'OTHER CONCEPTS'	
Title of the training:	Data collection and analysis methods in consumer research
Brief description of a training content:	<p>One day course on the topic of „data collection and analysis methods in consumer research“ using the example of Food Integrity consumer research in China.</p> <p>Half day: Qualitative consumer research methods, which will use the experiences and results of the task: Study scoping by interviewing exporters in Europe and supply chain actors in China</p> <p>Half day: Quantitative research methods, which will use the experiences and results of the task: Interpretation of the survey results through expert group discussion</p>
Duration (days):	2 days
Starting date - month(s) of the project:	January - March 2018
Capacity (no. of trainees):	Depending on interest
Venue of the training:	FiBL, Frick, Switzerland

Name of the organisation:	Nofima
Web address	https://nofima.no/
Specific expertise of the organisation relevant to the FoodIntegrity project:	Traceability and development of sector-specific ontologies, good-practice guides, methodologies and tools

Specification of the training offered related to 'OTHER CONCEPTS'	
Title of the training:	Traceability in relation to food integrity
Brief description of a training content:	<p>Training will focus on traceability systems and their applications, challenges of ensuring ingredients and raw materials are obtained from relevant sources using existing and novel solutions for various products.</p> <p>Training will also provide information on a coherent and integrated toolbox, developed by FoodIntegrity, linking product claims to analytical and paper-trail methods, to facilitate authenticity of food products; method development in relation to how to use traceability system recordings to detect food product misdescription.</p>
Duration (days):	Up to 5 days
Starting date - month(s) of the project:	2018
Capacity (no. of trainees):	Depending on interest
Venue of the training:	Nofima, Tromsø, Norway