

France

MARSEILLE



15-17 MAY 2013



**IAFP'S
EUROPEAN SYMPOSIUM
ON FOOD SAFETY**



**IN COLLABORATION WITH ILSI EUROPE, THE SOCIETY FOR APPLIED MICROBIOLOGY AND THE WORLD HEALTH ORGANIZATION
WITH THE TECHNICAL COOPERATION ON THE FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS.**

Programme



**International Association for
Food Protection®**

6200 Aurora Avenue, Suite 200W • Des Moines, Iowa 50322-2864, USA

+ 1 515.276.3344

+ 1 800.369.6337

+ 1 515.276.8655 Fax

Information is available at: www.foodprotection.org

France

MARSEILLE

PLATINUM SPONSOR



GOLD SPONSORS



SILVER SPONSORS



BRONZE SPONSORS



www.r-biopharm.com



SPEAKERS

IRENE ALPIGIANI

University of Parma
Italy

JOZSEF BARANYI

Institute of Food Research
United Kingdom

MICHAEL BATZ

University of Florida
United States

SILVIA BONARDI

University of Parma
Italy

ALBERT BOSCH

Universitat de Barcelona
Spain

FRANCOIS BOURDICHON

Nestec
Switzerland

ROMAIN BRIANDET

INRA-AgroParis Tech
France

JANET BUFFER

The Kroger Company
United States

JEFF DAELMAN

Ghent University
Belgium

ANTHONY FLOOD

International Food Information
Council
United States

MARY FRIEL

European Food Information Council
Belgium

STEFAN GUNNARSSON

Swedish University of Agriculture
and Sciences
Sweden

HASMIK HAYRAPETYAN

Wageningen University
The Netherlands

THOMAS HOLZHAUSER

Paul-Ehrlich-Institut
Germany

MARTA HUGAS

EFSA
Italy

ALEJANDRA LATORRE

Universidad de Concepcion
Chile

BERTRAND LOMBARD

ANSES
France

GUY LONERAGAN

Texas Tech University
United States

ESTELLE LOUKIADIS

VetAgro Sup Lyon
France

GERT-JAN MEDEMA

Delft University of Technology/KWR
Water Cycle Research Institute
The Netherlands

JEANNE-MARIE MEMBRE

INRA
France

PAUL MENNECIER

French Ministry of Agriculture
France

CHRIS MICHIELS

University of Leuven
Belgium

STEFANO MORABITO

EU Reference Laboratory for
Escherichia coli Including VTEC
Italy

GEORGE NYCHAS

Agriculture University of Athens
Greece

SYLVIA PFAFF

Food Information Service Europe
Germany

SURESH PILLAI

Texas A&M University
United States

EDOARDO POZIO

Istituto Superiore di Sanita
Italy

ALAN REILLY

Food Safety Authority of Ireland
Ireland

LUCY ROBERTSON

Norwegian School of Veterinary
Science
Norway

ANNA ROCCATO

Istituto Zooprofilattico Sperimentale
delle Venezie
Italy

GAIA SCAVIA

Istituto Superiore Di Sanita
Italy

DONALD SCHAFFNER

Rutgers University
United States

GILBERT SKORSKI

Phylogene
France

FRANS J.M. SMULDERS

University of Veterinary Medicine
Austria

KATIE SWANSON

KMJ Swanson Consulting
United States

STEFAN TOEPFL

German Institute of Food Technolo-
gies (DIL)
Germany

DIRK WERBER

Robert Koch Institute
Germany

MARCEL ZWIETERING

Wageningen University
The Netherlands

ORGANISING COMMITTEE

MARCEL ZWIETERING, CHAIR

Wageningen University • The Netherlands

CHRISTINA HARZMAN, VICE-CHAIR

BIOTECON Diagnostics • Germany

PATRICE ARBAULT

BioAdvantage Consulting • France

JOZSEF BARANYI

Institute of Food Research • United Kingdom

PETER BEN EMBAREK

World Health Organization • Switzerland

SARAH CAHILL

Food & Agriculture Organization of the United Nations • Italy

STEFANO COLOMBO

Merieux NutriSciences Corporation • France

LOUISE FIELDING

Cardiff Metropolitan University • United Kingdom

CAROL IVERSEN

Nestec SA • Switzerland

PRATIMA JASTI

ILSI Europe • Belgium

TOM KENNEDY

Department of Agriculture, Fisheries and Food • Ireland

JEANNE-MARIE MEMBRE

INRA • France

ALAIN MINELLI

DuPont De Menours International SARL • Switzerland

HELMUT STEINKAMP

German Institute of Food Technologies • Germany

MIEKE UYTTENDAELE

Ghent University • Belgium

LOCAL ORGANISING COMMITTEE

JEAN GUZZO, CHAIR

University of Bourgogne, France

PATRICE ARBAULT

BioAdvantage Consulting, France

PATRICK BOYAVAL

Danisco, France

CHRISTOPHE DUFOUR

Silliker France, France

MICHEL FONS

University of Marseille, France

BERTRAND LOMBARD

ANSES, France

ESTELLE LOUKIADIS

VetAgro Sup Lyon, France

CHRISTOPHE NGUYEN-THE

INRA, France

KATIE SWANSON (IAFP BOARD)

KMJ Swanson Consulting, United States

DONALD SCHAFFNER (IAFP BOARD)

Rutgers University, United States

LISA HOVEY (IAFP STAFF)

IAFP, United States

TERRI HUFFMAN (IAFP STAFF)

IAFP, United States

DAVID THARP (IAFP STAFF)

IAFP, United States

DAY 1**WEDNESDAY, 15 MAY 2013***Poster Presentations Take Place Throughout the Day*

08.00-17.00

Registration Open

Callelongue • 9.00-10.30

Opening Session - Chairs - Katie Swanson and Marcel Zwietering

9.00

Introduction to IAFP and Symposium

David Tharp, International Association for Food Protection, United States

9.30

Food Safety Inspections:**Operational Implementation of European Legislation by the French Competent Authority**

Paul Mennequier, French Ministry of Agriculture, France

10.00

Risk Assessment of Biological Hazards and Its Impact on EU Food Safety Regulations

Marta Hugas, EFSA, Italy

10.30-11.00

Coffee Break

Callelongue • 11.00-12.00

Plenary Session Chairs - Katie Swanson and Marcel Zwietering

11.00

International and European Standardization of Analytical Methods in Food Microbiology: Organization and Activities

Bertrand Lombard, ANSES, France

11.30

Food Safety Modernization Act and Global Implications

Katie Swanson, IAFP President, United States

12.00-13.30

Networking Luncheon

Callelongue • 13.30-15.30

Raw Milk Around the World

13.30

Unpasteurized Milk Consumption in the USA: Inalienable Right or Gastronomic Roulette?

Janet Buffer, The Kroger Company, United States

14.00

If Raw Milk was Good for Romulus and Remus, Why Shouldn't We Drink It?

Gaia Scavia, Istituto Superiore Di Sanita, Italy

14.30

Two Extremes: UHT Versus Unpasteurized Milk in Latin America

Alejandra Latorre, Universidad de Concepcion, Chile

15.00

Technical Presentation - ISO 22000-Based Food Safety Management in a Dairy Farm

Christophe Boulais, Danone Research, France

15.15

Technical Presentation - Microbiology of New Zealand Bulk Tank Milk

Tanya Soboleva, Ministry for Primary Industries, New Zealand

*Organizers - Jeff Lejeune and Lydia Medeiros**Chairs - Jeff Lejeune and Lydia Medeiros*

Sormiou • 13.30-15.30

Quantitative Microbiology: Progress, Possibilities and Perspective

13.30

Quantitative Microbiology Models in Decision Support Systems: Are They Used, are They Useful and are They Accurate?

Marcel Zwietering, Wageningen University, The Netherlands

14.00

Predictive Models Applied to Soft Cheeses: How Can Data Generated on Laboratory Media be Used on Real Food Systems?

Jozsef Baranyi, Institute of Food Research, United Kingdom

14.30

Quantifying Food Spoilage

Jeanne-Marie Membre, INRA, France

15.00

Technical Presentation - A New Quantitative Risk Assessment Model of *Listeria monocytogenes*

Marco Romani, Silliker Italia, Italy

15.15 **Technical Presentation - A Model and Software for Quantitative Microbial Risk Assessment**
Cian O'Mahony, Crème Global, Ireland

*Organizers - Patrice Arbault, Marcel Zwietering, József Baranyi and Jeanne-Marie Membré
Chair - Patrice Arbault*

15.30-16.00 **Coffee Break**

Biofilms: Latest Insights in Biofilm Formation: Resistance and Efficient Removal

16.00 **Bacterial Swimmers That Infiltrate and Take Over the Biofilm Matrix**
Romain Briandet, INRA-AgroParisTech, France

16.30 **Biofilm Formation: A Trait Widely Present in *Bacillus cereus* and Affected by the Presence of Iron**
Hasmik Hayrapetyan, Wageningen University, The Netherlands

17.00 **Role of Microbial Interactions in Formation and Elimination of Biofilms Formed by Foodborne Bacteria**
George John Nychas, Agricultural University of Athens, Greece

17.30 **Technical Presentation - proP is Required for the Survival of Desiccated *Salmonella* Typhimurium on a Stainless Steel Surface**
Sarah Finn, UCD Centre for Food Safety, Ireland

17.45 **Technical Presentation - Evaluation of Resistance and Adaptability of Mono-species and Dual-species Biofilms of *Pseudomonas putida* and *Listeria monocytogenes* against Sublethal Concentration of Benzalkonium Chloride**
Efsthios Giaouris, University of Aegean, Greece

*Organizers - Heidy den Besten, Tjakko Abee and Romain Briandet
Chairs - Heidy den Besten, Tjakko Abee and Romain Briandet*

Detection Methods for Food Allergens: How Shall We Use Them?
Sponsored by r-Biopharm

16.00 **Detection Methods for Food Allergens: What Is Usable, Strengths and Limitations**
Gilbert Skorski, Phylogene, France

16.30 **Update on PCR Technique as an Analytical Tool for Allergen Detection**
Thomas Holzhauser, Paul-Ehrlich-Institut, Germany

17.00 **VITAL 2.0 and Actions Levels: How Shall It be Used?**
Sylvia Pfaff, Food Information Service Europe, Germany

17.30 **Technical Presentation - Development and Validation of Antibody-based Test Kits for the Detection of Allergens in Wine**
Frank Lukas, Romber Labs Division Holding GmbH, Germany

17.45 **Technical Presentation - Influence of Isolation Procedures on Official Monitoring Data of Pathogenic *Yersinia enterocolitica***
Inge Van Damme, Ghent University, Belgium

*Organizers - Patrice Arbault and Ronald Niemeijer
Chair - Ronald Niemeijer*

18.00-19.00 **Networking Reception**

DAY 2 THURSDAY, 16 MAY 2013

Poster Presentations Take Place Throughout the Day

08.00-17.00 **Registration Open**

Microbial Hazards in Water and QMRA to Assess Its Impact on Food Safety

09.00 **Waterborne Parasites Entering the Food Chain**
Lucy Robertson, Norwegian School of Veterinary Medicine, Norway

- 09.20 **Foodborne Viruses in Water**
Albert Bosch, Universitat de Barcelona, Spain
- 09.40 **Foodborne Bacterial Pathogens in Water**
Mieke Uyttendaele, Ghent University, Belgium
- 10.00 **QMRA to Underpin Safe Use of Water in the Food Chain**
To Be Determined
- 10.30 **Technical Presentation - Contamination of Bivalve Molluscs and Vegetables by the Protozoan Parasites *Cryptosporidium*, *Giardia* and *Toxoplasma*: Development and Validation of a Standardized Strategy of Detection and Characterization**
Aurelien Dumetre, Aix-Marseille University, France
- 10.45 **Technical Presentation - Use of a Non-oxidising Disinfectant to Reduce Microbial Load in Produce Wash Water**
Colin Fricker, CRF Consulting Ltd., United Kingdom
- Organizers - Mieke Uyttendaele and Pratima Jasti*
Chair - Marisa Caipo

STEC: A Global Concern for the Food Industry

- 09.00 **STEC in Food: Update on Method Standardization, Impact on the Food Industry and Food Safety Reflections in Europe**
Stefano Morabito, EU Reference Laboratory for *Escherichia coli* Including VTEC, Italy
- 09.30 **STEC Monitoring Program and Monitoring Network in France**
Estelle Loukiadis, VetAgro Sup Lyon, France
- 10.00 **STEC in U.S.: What Have We Learned a Year after the Implementation of USDA-FSIS Regulation?**
Guy Loneragan, Texas Tech University, United States
- 10.30 **Technical Presentation - Purification and Characterization of Native Shiga Toxin 2F and Its Monoclonal Antibodies**
Xiaohua He, U.S. Department of Agriculture-ARS-WRRC, United States
- 10.45 **Technical Presentation - Molecular and Phenotypic Characterization of STEC in The Netherlands**
Eelco Franz, RIVM-Centre for Infectious Disease Control, The Netherlands
- Organizer - Patrice Arbault*
Chair - Jean Guzzo

Technical Session 1 – Antimicrobials and Risk Modelling

- 09.00 **Impact of Probiotic Bio-compounds on Virulence of Foodborne and Zoonotic Pathogens**
Rocio Morales, University of Guelph, Canada
- 09.15 **Isolation of Environmental Bacteriophages against *Listeria monocytogenes* to be used as Bio-decontaminants in Food**
Giuseppe Aprea, Istituto Zooprofilattico Sperimentale dell' Abruzzo e del Molise "G. Caporale", Italy
- 09.30 **Transfer of *Campylobacter* from Chicken Legs to Cooked Slices via Domestic Cutting Board**
Muriel Guyard-Nicodeme, ANSES, France
- 09.45 **Exposure of *Escherichia coli* O157:H7 to Soil, Manure or Water Influences Persistence of that Pathogen on Plants and Initiation of Plant Defense**
Karl Matthews, Rutgers, The State University of New Jersey, United States
- 10.00 **Inter- and Intra-serovar Variation in In-Vitro Pathogenicity of *Salmonella* spp.**
Lucas Wijnands, National Institute for Public Health and the Environment, The Netherlands
- 10.15 **Foodborne Viruses: Integration of the Viral Risk in the HACCP Plan of a Food Company**
Fabienne Loisy, Ceeram, France
- 10.30 **Impact of Climate Change on the Microbial Safety of Pre-harvest Leafy Green Vegetables**
Cheng Liu, Wageningen University, The Netherlands
- 10.45 **Friday 13th Risk Modelling: A New Risk of UV Irradiation for Potable Water**
Nadiya Abdul Halim, The University of Adelaide, Australia

Chairs - Jozsef Baranyi and Christophe Dufour

11.00-11.30

Coffee Break

Linking Animal Welfare with Food Safety

11:30 **Are Measures Promoting Animal Welfare and Those Assuring Food Safety Reconcilable?**
Frans J.M. Smulders, University of Veterinary Medicine, Austria

12:00 **Farm Animal Welfare and Public Health: Examples from Pigs, Poultry and Cattle in Sweden**
Stefan Gunnarson, Swedish University of Agriculture and Sciences, Sweden

12:30 **An Approach to Establish the Potential Association between Animal-based Welfare Measures and (*Yersinia enterocolitica*) Shedding in Porcine Tissues**
Sylvia Bonardi and Irena Alpigiani, University of Parma, Italy

13:00 **Technical Presentation - Construction of the Analytical Platform for Food Safety Information in China**
Shanquan Chen, The Chinese University of Hong Kong, Hong Kong

13:15 **Technical Presentation - Diagnosing and Improving Food Safety Culture in Food Businesses**
Michael Wright, Greenstreet Berman Ltd., United Kingdom

Organizer - Tom Kennedy

Chair - Tom Kennedy

How to Handle “Reasonably Foreseen Abuse” in Food Microbial Safety

11:30 **Survey Conducted in Italy on the Consumer Refrigeration Temperatures, Its Impact on Food Safety Illustrated with *Salmonella***
Ana Roccatò, Istituto Zooprofilattico Sperimentale delle Venezie, Italy

12:00 **Consumer Habits and Their Impact on the Food Safety of Cooked Chilled Foods - Results of a Survey in Belgium**
Jeff Daelman, Ghent University, Belgium

12:30 **How to Include Quantitatively “Reasonably Foreseen Abuse” in Shelf-life Determination and Risk Assessment?**
Jeanne-Marie Membre, INRA, France

13:00 **Technical Presentation - Food Safety Knowledge among Persons Living with AIDS and Design of an Educational Intervention**
Mark Dworkin, University of Illinois at Chicago, United States

13:15 **Technical Presentation - Spoilt Rotten – The Impact of Spoilage in the No-preservative Foodscape**
Edward Stuttard, DTS Food Laboratories, Australia

Organizers - Mieke Uyttendaele and Jeanne-Marie Membre

Chair - Mieke Uyttendaele

Technical Session 2 – Molecular and other Detection Methods

11:30 **Prevalence of the 7 Major Serogroups of Enterohemorrhagic *Escherichia coli* (EHEC) in Fresh Minced Beef in France: A Novel Real-time PCR Strategy for Their Early Detection in Food**
Estelle Loukiadis, Université de Lyon VetAgro Sup, France

11:45 **A Piezoelectric Immunosensor for Specific Capture and Enrichment of Viable *Escherichia coli* O157:H7 by Quartz Crystal Microbalance Sensor, Followed by Detection with Antibody-functionalized Gold Nanoparticles**
Vivan Wu, University of Maine, United States

12:00 **Use of Clustered Regularly Interspaced Short Palindromic Repeat (CRISPR) Sequence Polymorphisms for Specific Detection of Enterohemorrhagic *Escherichia coli* Strains of Serotypes O26:H11, O45:H2, O103:H2, O111:H8, O121:H19, O145:H28 and O157:H7 by Real-time PCR**
Sabine Delannoy, ANSES, France

12:15 **Development and Application of Immuno-tools for the Analysis of Non-O157 Shiga Toxin-producing *Escherichia coli* (STEC) in Raw Beef**
Mark Muldoon, Romer Labs Technologies, Inc., United States

12:30 **Direct Detection of Foodborne Pathogens Using SPRI System during Enrichment Step**
Laure Mondani, CEA, France

Callelongue • 11.30-13.30

Sormiou • 11.30-13.30

Morgiou • 11.30-13.30

	12.45	Detection of Enterotoxins Produced by <i>Bacillus cereus</i> Strains Involved in Food Poisoning Using MALDI-TOF Mass Spectrometry Varvara Tsilia, Ghent University, Belgium
	13.00	Growth of <i>Listeria monocytogenes</i> in Presence of <i>Listeria innocua</i> during Traditional Detection Method Tekla Engelhardt, Corvinus University of Budapest, Hungary
	13.15	Rapid Multiplex Detection of Norovirus in Food Samples Fabienne Loisy, Ceeram, France
		Chairs - Louise Fielding and Bertrand Lombard
Callelongue • 15.00-17.00	13.30-15.00	Networking Luncheon
		Foodborne Parasites
	15.00	A Multi-criteria Based Ranking of Global Foodborne Parasites Michael Batz, University of Florida, United States
	15.30	Options for Control of Foodborne Parasites Ranked as of Greatest Importance Lucy Robertson, Norwegian School of Veterinary Science, Norway
	16.00	<i>Toxoplasma gondii</i> – A Foodborne Parasite of Increasing Importance Edoardo Pozio, Istituto Superiore di Sanita, Italy
	16.30	Technical Presentation - Mechanical and Adhesive Properties of the <i>Toxoplasma gondii</i> Oocyst Wall Aurelien Dumetre, Aix-Marseille University, France
	16.45	Technical Presentation - Efficacy of Peroxyacetic Acid and Lactic Acid Washes on Removal of <i>Toxoplasma gondii</i> Oocysts from Blueberries Vivan Wu, University of Maine, United States
		<i>Organizers - Sarah Cahill, Marisa Caipo and Mina Kojima</i> <i>Chair - Marisa Caipo</i>
Sormiou • 15.00-17.00		Advances in Non-thermal Processing Technologies to Address Contemporary Food Safety Issues
	15.00	Preservation of Heat Sensitive Liquids by Pulsed Electric Fields Stefan Toepfl, German Institute of Food Technologies (DIL), Germany
	15.30	Safety and Stability of Ready-to-Eat Foods Processed by High Pressure Treatment Chris Michiels, University of Leuven, Belgium
	16.00	Reduction of Public Health Risks from Enteric Viruses in Fresh Produce and Shellfish Using Electron Beam Pasteurization Suresh Pillai, Texas A&M University, United States
	16.30	Technical Presentation - Endospore Inactivation in Liquid Foods by Pulsed Electric Fields – An Innovative Ultra-high Temperature Process Kai Reineke, Leibniz Institute for Agricultural Engineering (ATB), Germany
16.45	Technical Presentation - High-pressure Sterilization (HPST) of Baby Food Puree and the Possible Reduction of Food Processing Contaminants Robert Sevenich, Technical University of Berlin, Germany	
		<i>Organizers - Shima Shayanfar, German Institute of Food Technologies (DIL)</i> <i>Chair - Stefan Toepfl</i>
Morgiou • 15.00-17.00		Technical Session 3 – Inactivation Methods
	15.00	Novel Approach to Control Food Pathogens in Non-thermal Way: First Attempts to Decontaminate Strawberries by Photosensitization Zivile Luksiene, Vilnius University, Lithuania
	15.15	Efficacy of Atmospheric Gas Plasma Treatment for the Control of <i>Listeria monocytogenes</i> on Salad Vegetables Yuichiro Takai, Research Institute of Environment, Agriculture and Fisheries, Japan
	15.30	High-pressure Inactivation of the Shiga Toxin-producing <i>Escherichia coli</i> O104:H4 and O157:H7 Outbreak Strains Kai Reineke, Leibniz Institute for Agricultural Engineering (ATB), Germany

- 15.45 **Flow Cytometric Study of the Sanitizer-Induced Viable but Non-culturable State in *Escherichia coli* in Orange Juice**
Amir Anvarian, University of Birmingham, United Kingdom
- 16.00 **Methylcellulose Films Containing Natural Extracts: Antibacterial Properties**
Clara Piccirillo, Universidade Catolica Portuguesa, Portugal
- 16.15 **Role of Food Lipids in Cold Adaptation of *Bacillus cereus* in Absence of Oxygen**
Christophe Nguyen-the, INRA, France
- 16.30 **Behavior of *Bacillus cereus* Under Conditions Simulating the Proximal Gut**
Varvara Tsilia, Ghent University, Belgium
- 16.45 **Risk Mitigation in Reducing Thermal Processing with Hurdle Technologies: A Challenge Study in the Canning Industry with *Clostridium botulinum***
Tony Savard, Agriculture and Agri-Food Canada, Canada
- Chairs - Christina Harzman and Helmut Steinkamp

18.00-21.00

Thursday Evening Social

DAY 3 FRIDAY, 17 MAY 2013

Poster Presentations Take Place Throughout the Day

08.00-14.00

Registration Open

Communication about Food Risks: Framing the Message and Choosing the Communication Channels

Callelongue • 9.00-10.30

- 09.00 **The Global Challenge of Communicating and Managing Food Safety Risks in an Era of Social Media**
Alan Reilly, Food Safety Authority of Ireland, Ireland
- 09.30 **Comparison of Reporting of Food Risks and Benefits in UK Newspapers**
Mary Friel, European Food Information Council, Belgium
- 10.00 **What We Need to Know About Consumers When Communicating Food Risks**
Anthony Flood, International Food Information Council, United States

*Organizer - Josephine Wills
Chair - Josephine Wills*

10.30-11.00

Coffee Break

Plenary Session - Chairs - Katie Swanson and Marcel Zwietering

Callelongue • 11.00-13.00

- 11.00 **Epidemic Profile and Epidemiologic Investigations in the STEC O104:H4 Outbreak in Germany, 2011**
Dirk Werber, Robert Koch Institute, Germany
- 11.30 **Modeling Cross Contamination Between Produce and Common Kitchen Surfaces**
Donald Schaffner, IAFP President-Elect, United States
- 12.00 **Risk Assessment from an Industry Perspective**
Francois Bourdichon, Nestec, Switzerland
- 12.30 **Wrap-up of Symposium/Poster and Technical Awards**
Katie Swanson, IAFP President, United States

13.00-14.00

Farewell Refreshments/Exhibits