



FOOD MICRO 2010 - Copenhagen 30 August - 3 September

Programme

The 22nd International ICFMH Symposium - FOOD MICRO 2010 Microbial Behaviour in the Food Chain

Monday, 30th August 2010

- 14:00 – 17:00 Registration
Venue: Bella Center
- 19:00 – 21:00 Welcome reception
Venue: Town Hall of Copenhagen

Tuesday, 31st August 2010

08:00 Registration open
Venue: Bella Centre

09:00 – 10:00 Opening session
(Aud. 10, 11 and 12) - Chair: Svend Erik Sørensen, Chairman for the LMC Executive Board, DK

09:00 – 09:10 Official opening by Denmark's Minister for Science, Technology and Innovation, Charlotte Sahl-Madsen

09:10 – 09:20 Centre for Advanced Food Studies (LMC)
Jacob Holm Nielsen, LMC, Denmark

09:20 – 09:55 Food safety: harvesting experience to improve health
Jorgen Schlundt, Deputy Director, Technical University of Denmark, Denmark

09:55 – 10:00 Welcome
Wilhelm Holzapfel, President of ICFMH

10:00 – 10:30 Coffee/tea

10:30 – 11:50 Plenary session A: Microbial behaviour in food fermentation and spoilage
(Aud. 10, 11 and 12) - Chair: Eric Johansen, DK / Peter Rådström, SE

10:30 – 11:10 Tips on preparing food starter bacteria that live healthier and last longer
Alexandra Gruss, INRA, France

11:10 – 11:50 Production of bioactives by intestinal bacteria as a basis for explaining probiotic mechanisms
Paul Ross, Moorepark Food Research Centre, Ireland

11:50 – 12:50 Lunch

12:50 – 14:30 Parallel sessions A1 and A2

12:50 – 14:30	<p>Parallel session A1: Functional starter cultures (Aud. 11 and 12) - Chair: Wilhelm Holzapfel, DE/ Dieter Elsser-Gravesen, DK</p> <p>Topics: A1.1. Starter cultures, fermented foods and functional characteristics A1.2. Metabolism and regulatory networks A1.3. Genomics and mobile elements (bacteriophages, plasmids, transposons etc.)</p>
12:50 – 13:05	Food safety of traditional African alkaline fermented products Labia II Ouoba, London Metropolitan University, United Kingdom
13:05 – 13:20	<i>Pediococcus</i> and <i>Lactobacillus</i> starter cultures for Digitaria sourdoughs Mojisola Edema, University of Agriculture, Nigeria
13:20 – 13:35	Cloning and characterization of genes involved in sulfur amino acid metabolism in <i>Lactobacillus casei</i> Biljana Bogicevic, Agroscope Liebefeld Posieux, Switzerland
13:35 – 13:45	Break
13:45 – 14:00	Evaluation of the interaction of <i>Saccharomyces cerevisiae</i> and <i>Lactobacillus fermentum</i> in the production of artisanal cachaça Whasley F. Duarte, Federal University of Lavras, Brazil
14:00 – 14:15	Intraspecific genetic diversity of <i>Oenococcus oeni</i> Emmanuel Coton, ADRIA Normandie, France
14:15 – 14:30	Specific metabolic activity of ripening bacteria quantified by quantitative reverse transcription throughout Emmental cheese manufacture Florence Postollec, ADRIA Développement-UMT08, France
12:50 – 14:30	<p>Parallel session A2: Microbial metabolites (Aud. 15) - Chair: Peter Raspor, SI/ Sara Bover-Cid, ES</p> <p>Topics: A2.1. Biopreservation A2.2. Microbial metabolites and exopolysaccharides A2.3. Spoilage organisms</p>
12:50 – 13:05	Stress genes expression in <i>Brettanomyces bruxellensis</i> during winemaking with sulphite Tiziana Nardi, Université de Bourgogne, France
13:05 – 13:20	Biological activity and chemical composition of lemon grass and cajuput oil Rajesh Kumar, Banaras Hindu University, India
13:20 – 13:35	Inhibition of <i>Brochothrix thermosphacta</i> and spoilage prevention of cooked peeled shrimp by <i>Lactococcus piscium</i> CNCM I-4031 Papa A. Fall, ONIRIS, France
13:35 – 13:45	Break
13:45 – 14:00	Microbial metabolites and species diversity in beef stored in different packaging conditions Danilo Ercolini, University of Naples Federico II, Italy
14:00 – 14:15	A study on germination time and mycelium growth of <i>Penicillium expansum</i> and <i>Aspergillus niger</i> single spores Kostas Koutsoumanis, Aristotle University of Thessaloniki, Greece

14:15 – 14:30 Anti-listerial activity of subtilisin alone and combined with curcumin, polylysin and zinc lactate
Tahar Amrouche, M. Mammeri University, Algeria

14:30 – 17:00 Coffee/tea and **Poster session**

17:00 – 18:00 Seminar: Food Microbiology in food safety
(Aud. 11 and 12) - Chair: Peter Raspor, SI/ Susanne Knøchel, DK

17:00 – 17:25 Inter-connections and dis-connections between food microbiology and food safety education
Peter Raspor, Slovenia

17:20 – 17:35 Are international courses needed?
Susanne Knøchel, Denmark

17:35 – 18:00 Discussion round

Wednesday, 1st September 2010

09:00 – 10:20 Plenary session B: Microbial behaviour in adverse environments
(Aud. 10, 11 and 12) - Chair: Hanne Ingmer, DK/ Claes v Wachenfeldt, SE

09:00 – 09:40 Bacterial rejuvenation: lag phase is a distinct growth phase that involves metal accumulation and prepares bacteria for exponential growth
Jay Hinton, Norwich Research Park, United Kingdom

09:40 – 10:20 Integrated stress responses in *Salmonella*
Ferric Fang, University of Washington School of Medicine, USA

10:20 – 10:50 Coffee/tea and **Poster session**

10:50 – 12:10 Plenary session C: Microbial behaviour in risk assessment
(Aud. 10, 11 and 12) - Chair: Paw Dalgaard, DK/ Henrik Wegener, DK

10:50 – 11:30 Modelling microbial ecology in food safety risk assessment: How much detail is needed?
Tom Ross, University of Tasmania, Australien

11:30 – 12:10 Risk assessment of food borne pathogens at the EU level
Arie Havelaar, RIVM, the Netherlands

12:10 – 13:05 Lunch

13:05 – 14:45 Parallel sessions B1 and C1

13:05 – 14:45 Parallel session B1: Microbial pathogenesis
(Aud. 15) - Chair: Larry Beuchat, USA/ Tibor Deak, HU

Topics:

- B1.1. Pathogenesis and virulence
- B1.2. Microbial toxins

13:05 – 13:20	Expression of virulence genes of <i>Listeria monocytogenes</i> after growth on vacuum-packed cold-smoked salmon, stored at 7°C Els Van Coillie, Institute for Agricultural and Fisheries Research (ILVO), the Netherlands
13:20 – 13:35	Reduced host cell invasiveness and oxidative stress tolerance in double and triple csp gene family deletion mutants of <i>Listeria monocytogenes</i> Taurai Tasara, University of Zurich, Switzerland
13:35 – 13:50	Extended expression of <i>Staphylococcal enterotoxins A</i> and <i>D</i> in pork meat products Nina W. Carlquist, Lund University, Sweden
13:50 – 14:00	Break
14:00 – 14:15	The LC-MS ² as a quantitative tool to investigate the influence of growth parameters on Cereulide production by <i>Bacillus cereus</i> in food Laurence Delbrassinne, Institute of Public Health, Belgium
14:15 – 14:30	In situ virulence gene expression of <i>Listeria monocytogenes</i> in food Luca Coccolin, University of Turin, Italy
14:30 – 14:45	In vitro and in situ detoxification of Ochratoxin A by yeasts and bacteria of technological importance Panagiotis Skandamis, Agricultural University of Athens, Greece
13:05 – 14:45	Parallel session C1: Predictive microbiology (Aud. 11 and 12) - Chair: Kostas Koutsoumanis, GR / Marcel Zwietering, NL Topics: C1.1. Predictive microbiology C1.2. Methods for monitoring microbial activities C1.3. Typing and detection methods
13:05 – 13:20	Modelling of growth, growth/no-growth interface and inactivation areas of <i>Listeria</i> in foods Louis Coroller, Université Européenne de Bretagne, France
13:20 – 13:35	Modelling osmotic stress by flux balance analysis at the genomic scale Aline Metris, Institute of Food Research, United Kingdom
13:35 – 13:50	Monitoring beef spoilage using multispectral image analysis Bjørn Dissing, Technical University of Denmark, Denmark
13:50 – 14:00	Break
14:00 – 14:15	Modelling gene expression in <i>salmonella</i> using microarray hybridizations under conditions relevant to the pork chain Carman Pin, Institute of Food Research, United Kingdom
14:15 – 14:30	Lipooligosaccharide gene locus classes of <i>Campylobacter jejuni</i> : A predictor for genotype and virulence potential? Ihab Habib, Ghent University, Belgium
14:30 – 14:45	Rapid quantification of viable <i>Campylobacter</i> on chicken carcasses by real-time PCR and propidium monoazide as a tool for quantitative risk assessment Matilde Josefsen, Technical University of Denmark, Denmark
14:45 – 15:50	Coffee/tea and Poster session
15:50 – 17:30	Parallel sessions B2 and C2

15:50 – 17:30

Parallel session B2: Microbial resistance

(Aud. 15) - Chair: Nils Arneborg, DK / Luca Coccolin, IT

Topics:

B2.1. Stress response

B2.2. Resistance and spores

B2.3. Persistence and biofilm

15:50 – 16:05

Cold tolerance of group I *Clostridium botulinum*

Miia Lindström, University of Helsinki, Finland

16:05 – 16:20

Extreme heat resistance in *Salmonella*

Rob de Jonge, National Institute for Public Health and the Environment, the Netherlands

16:20 – 16:35

Inactivation-Associated formation of reactive oxygen species in heat- and acid-stressed bacteria

Alicia Subires, Wageningen University, the Netherlands

16:35 – 16:45

Break

16:45 – 17:00

Contribution of motility and flagella in surface colonization by *Listeria monocytogenes*

Mickaël Desvaux, INRA Clermont-Ferrand, France

17:00 – 17:15

Development of VTEC resistance to commercial biocides and biocidal components

Kaye Burgess, Teagasc Ashtown Food Research Centre, Ireland

17:15 – 17:30

Butanediol fermentation supports growth of Enterobacteriaceae at low pH

Chris Michiels, K.U.Leuven, Belgium

15:50 – 17:30

Parallel session C2: Risk assessment

(Aud. 11 and 12) - Chair: Tom McMeekin, AU/ Norval Strachan, UK

Topics:

C2.1. Hazard analysis and risk assessment

C2.2. Emerging viruses and other hazards

C2.3. Epidemics, consumer protection and climate aspects

15:50 – 16:05

Risk-based approach applied to commercial sterility of products

Jeanne-Marie Membré, UMR-INRA 1014, France

16:05 – 16:20

Logistic simulation-based quantitative microbial risk assessment for *E. Coli O157:H7*, *S. enterica* and *L. monocytogenes* in leafy green vegetables consumed at salad bars

Eelco Franz, National Institute for Public Health and the Environment, The Netherlands

16:20 – 16:35

Challenges for the prevention of norovirus and hepatitis A virus in food samples

Fabienne Loisy-Hamon, CEERAM, France

16:35 – 16:45

Break

16:45 – 17:00

Inactivation of murine norovirus-1, coliphage øX174 and *B. fragilis* phage B40-8 on surfaces and shredded Iceberg lettuce by hydrogen peroxide and UV light

Lee Baert, Ghent University, Belgium

17:00 – 17:15

Source attribution of human food- borne illnesses in Latin America and the Caribbean using outbreak data

Sara M. Pires, Technical University of Denmark, Denmark

17:15 – 17:30

The changing *Campylobacter* epidemic
Norval Strachan, University of Aberdeen, United Kingdom

19:30 – 00:30

Congress Dinner
Venue: Hotel D'Angleterre, Copenhagen

Thursday, 2nd September 2010

08:30 – 09:50

Plenary session D: Microbial behaviour in primary production and food processing
(Aud. 10, 11 and 12) - Chair: Elizabeth Borch, SE/ Susanne Knøchel, DK

08:30 – 09:10

Opportunity for mitigating pathogen contamination during food production
Michael P. Doyle, UGA Center for Food Safety, USA

09:10 – 09:50

New trends and challenges in food preservation
Frank Devlieghere, Ghent University, Belgium

09:50 – 10:35

Coffee/ tea and **Poster session**

10:35 – 11:55

Plenary session E: Microbial behaviour in the intestinal tract
(Aud. 10, 11 and 12) - Chair: Mogens Jakobsen, DK/ Anna Lyra, FI

10:35 – 11:15

Regulation of host physiology and metabolism by the gut microbiota
Fredrik Bäckhed, University of Gothenburg, Sweden

11:15 – 11:55

Microbial interactions in the intestinal tract
Willem de Vos, Wageningen Agricultural University, the Netherlands

11:55 – 12:40

Lunch

12:40 – 14:20

Parallel sessions D1 and E1

12:40 – 14:20

Parallel session D1: Food production
(Aud. 11 and 12) - Chair: Janet Corry, UK/ Jordi Rovira, ES

Topics:

D1.1. Primary production

D1.2. Processing technology incl. packaging

D1.3. Hygienic design

12:40 – 12:55

Horticultural assessment scheme in the fresh produce chain
Imca Sampers, University College of West-Flanders (Howest), Belgium

12:55 – 13:10

Factors related to the prevalence of pathogenic *Yersinia enterocolitica* on Finnish pig farms
Sonja Virtanen, University of Helsinki, Finland

13:10 – 13:25

Attachment behaviour of pathogenic bacteria on food and food contact surfaces in

container transport
Stephen Abban, University of Copenhagen, Denmark

13:25 – 13:35

Break

13:35 – 13:50

Irrigation quantity and timing impact microbial risk of fresh-cut lettuce
Maria I Gil, CEBAS-CSIC, Spain

13:50 – 14:05

A novel antimicrobial non-eluting technology for beverage packaging
Neta Levy, Oplon Pure Science BV, Israel

14:05 – 14:20

Twenty years of monitoring of *Campylobacter* in Swedish broilers
Eva Olsson Engvall, National Veterinary Institute, Sweden

12:40 – 14:20

Parallel session E1: Human responses to gut microbiota

(Aud. 15) - Chair: Ulla Svensson, SE/ Lene Jespersen, DK

Topics:

E1.1. Host – gut microbiota interactions

E1.2. Food - gut microbiota interactions

12:40 – 12:55

Antibiotic resistance gene transfer from *Enterococcus* to gut microbiota
Martina Haug, ETH Zürich, Switzerland

12:55 – 13:10

Effects of feeding prebiotic to pigs for 1 or 2 weeks before slaughter
Annette N. Jensen, Technical University of Denmark, Denmark

13:10 – 13:25

The effect of *L. acidophilus* NCFM intake on insulin sensitivity and gut microbiota: a randomized placebo-controlled trial
Nadja Larsen, University of Copenhagen, Denmark

13:25 – 13:35

Break

13:35 – 13:50

Probiotics and prebiotics in poultry feeding: a strategy to reduce the transmission of *C. jejuni* along the food chain
Loredana Baffoni, University of Bologna, Italy

13:50 – 14:05

Effects of whey protein hydrolyzed formula on metabolic profiles and fecal microbiota of infants with cow's milk protein allergy
Pamela Vernocchi, University of Bologna, Italy

14:05 – 14:20

Gut microbiota and metabolome modulation in sourdough bread fed rats
Andrea Gianotti, University of Bologna, Italy

14:20 – 14:50

Coffee/tea and **Poster session**

14:50 – 16:30

Parallel sessions D2 and E2

14:50 – 16:30

Parallel session D2: Food preservation

(Aud. 11 and 12) - Chair: Andreja Rajkovic, BE / Graham Fleet, AU

Topics:

D2.1. Preservation and hurdle technology

D2.2. Decontamination methods

D2.3. Single cell microbiology

14:50 – 15:05	Effect of initial cell concentration on cold atmospheric plasma inactivation of <i>Salmonella typhimurium</i> cells Ana Fernandez, Institute of food research, United Kingdom
15:05 – 15:20	In search of biomarkers for stress-induced robustness Heidy Den Besten, Wageningen University and Research Centre, the Netherlands
15:20 – 15:35	Influence of flow-rate, surface soiling and pre-exposure to sub-lethal stress on initial attachment of <i>Listeria monocytogenes</i> on solid surfaces under liquid flow Julie Szlavik, Copenhagen University, Copenhagen, Denmark
15:35 – 15:45	Break
15:45 – 16:00	Relevant factors of the decontamination by pulsed light in the food industry Caroline Levy, INRA, France
16:00 – 16:15	Inactivation of <i>Alicyclobacillus acidoterrestris</i> and <i>Bacillus coagulans</i> spores in tomato sauce by high hydrostatic pressure Anne Vercaammen, K.U.Leuven, Belgium
16:15 – 16:30	The effect of the <i>Escherichia coli</i> T4 bacteriophage and of the volatile compounds of oregano essential oil on the <i>E.coli</i> growth on beef fillets George Nychas, Agricultural University of Athens, Greece
14:50 – 16:30	Parallel session E2: Probiotics and intestinal interactions (Aud. 15) - Chair: Bruno Biavati, IT / Esben Laulund, DK Topics: E2.1. Intestinal ecology and evolution E2.2. Prebiotics and Probiotics
14:50 – 15:05	Microbial biodegradation in the gastrointestinal tract Ed van Niel, Lund University, Sweden
15:05 – 15:20	Kinetic analysis of CLA and CLNA production by Bifidobacteria indicates differences on strain level Lara Gorissen, Ghent University, Belgium
15:20 – 15:35	Genomic typing of <i>Lactobacillus johnsonii</i> : Co-evolution of <i>L. johnsonii</i> strains with their hosts Yechezkel Kashi, Technion, Israel
15:35 – 15:45	Break
15:45 – 16:00	Study of the interactions between the commensal bacteria of the gastrointestinal tract and <i>S. typhimurium</i> Gaspar Avendano-Perez, Institute of Food Research, United Kingdom
16:00 – 16:15	Impact of <i>Kluyveromyces marxianus</i> on the human gut microbial ecology: a combined in vivo and in vitro studies Simone Maccaferri, University of Bologna, Bologna, Italy
16:15 – 16:30	Effect of fermentation on the surface and adhesion properties of <i>Lactobacillus rhamnosus</i> Dimitris Charalampopoulos, University of Reading, United Kingdom
16:30 – 16:40	Break

16:40 – 17:15 **Closing session**
(Aud. 11 and 12) - Chair: Peter Rådström, Lund University, SE

16:40 – 16:50 Summing up
Mogens Jakobsen, University of Copenhagen, Denmark

16:50 – 16:55 Poster award – ICFMH Poster Competition
Larry R. Beuchat, ICFMH

16:55 – 17:05 Food Micro 2012, Turkey
Dilek Heperkan, Istanbul Technical University, Turkey

17:05 – 17:15 Closing remarks
Wilhelm Holzapfel, President of ICFMH

Friday, 3rd September 2010

08:30 – 16:15 **EU-seminar** (PathogenCombat, ProSafeBeef, BioTracer)
Venue: Aud. 3-01, Faculty of Life Sciences, University of Copenhagen

