IAFP 2010 Program
All presentations to be held at the Anaheim Convention Center

DSC — Developing Scientist Competitor

MONDAY MORNING
AUGUST 2

S1 Microbiological Environmental Testing and Validation: Leading-edge Issues for Low-moisture Foods
Ballroom A

Sponsored by ILSI North America Technical Committee on Food Microbiology
Organizer: Darinka Djordjevic
Convenors: J. Stan Bailey, Laurie Post and Les Smoot

8:30 Continuous/Extended Run Low-moisture Food Processes — Challenges for Environmental Monitoring Strategies — JEAN-LOUIS CORDIER, Operations/Quality Management, Nestlé Nutrition, Vevey, Switzerland

9:00 Environmental Sampling Sites Versus Food Contact Surfaces — If, When and Where to Sample (Regulatory Perspective) — DONALD ZINK, Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

9:30 Environmental Sampling Sites Versus Food Contact Surfaces: If, When and Where to Sample (Industry Perspective) — STEVEN J. GOODFELLOW, Deibel Laboratories, Inc., Gainesville, FL, USA

10:00 Break

10:30 Validation of Low-moisture Process Cleaning/Sanitation Strategies — Redefining Validation Where There is a Lack of Defined Limits — MARK A. MOORMAN, Kellogg Company, Battle Creek, MI, USA

11:00 Can Environmental Monitoring Coupled with Finished Product Testing Validate Adequacy of Food Safety Control Programs for Continuous Low-moisture Processes? — ROBERT BUCHANAN, University of Maryland, Center for Food Safety and Security Systems, College Park, MD, USA

11:30 Panel Discussion

S2 Data Deluge, Interacting Players and Complex Networks in Food Sciences — Computational Tools to Tackle Food-related Complexities
303BCD

Sponsored by the IAFP Foundation
Organizer and Convenor: József Baranyi
Convenor: József Baranyi

8:30 Complex Networks Permeating Society and Science — RÉKA ALBERT, Pennsylvania State University, University Park, PA, USA

8:50 Revealing Networks of Interactions between Foods and Foodborne Organisms in ComBase — MARK TAMPLIN, Food Safety Centre, Hobart, TAS, Australia

9:10 Food Safety Scenarios, Probabilistic Networks and Source Level Inferences — GARY BARKER, Institute of Food Research, Norwich, United Kingdom

9:30 Potentials of Network Science in Food Safety and Security — JÓZSEF BARANYI, Institute of Food Research, Norwich, United Kingdom

S3 Converging Industry Initiatives on Traceability
303BCD

Sponsored by the IAFP Foundation
Organizers: Allen Sayler and Rudy Westervelt
Convenors: Allen Sayler and Rudy Westervelt

10:30 Advances in Food Traceability Technology — DENNIS HELDMAN, Heldman Associates, Mason, OH, USA

11:00 Produce Industry Traceability Mode — DAVID GOMBAS, United Fresh, Washington, D.C., USA

11:30 FDA’s Perspective and Requirements on Food Ingredient and Additive Traceability — FAYE FELDSTEIN, FDA, Severna Park, MD, USA
Human Pathogens Associated with Edible Plants

Organizers: Jacqueline Fletcher and Donald L. Zink
Convenor: Kelly Eversole

FDA Perspectives on the Need for Multidisciplinary Approaches to Food Safety — DONALD ZINK, FDA-CFSAN, College Park, MD, USA

Overview of Plant Pathology in Understanding Food Safety — JACQUELINE FLETCHER, Oklahoma State University, National Institute for Microbial Forensics and Food and Agricultural Biosecurity, Stillwater, OK, USA

Plant Pathology Research and Human Pathogens in/on Plants — JERI BARAK, University of Wisconsin, Plant Pathology Dept., Madison, WI, USA

Break

Human Pathogen-Plant Interactions — MARIA BRANDL, USDA-ARS-WRRC, Produce Safety and Microbiology Research Unit, Albany, CA, USA

Grower Perspectives on Food Safety — MELANIE IVEY, The Ohio State University, Plant Pathology Dept., Wooster, OH, USA

Outreach to Growers — Extension and Education for Safer Food — STEVEN KOIKE, University of California, Cooperative Extension Service, Salinas, CA, USA

Global Water Shortages — Their Impact on Water Safety and Quality

Organizers: Dean C. Davidson and Peter Kennedy
Convenor: Susan McKnight

Global Water Shortages and Their Impact on the Food Chain — JIM THEBAUT, The Chronicles Group, Inc., Los Angeles, CA, USA

The Impact of Pharmaceuticals on Water Safety and Quality: The USEPA Strategy for Addressing Contaminants of Emerging Concern — OCTAVIA CONERLY, USEPA, Science and Technology, Washington, D.C., USA

Water Reuse and the Impact on Food Safety and Quality — RICHARD ATWATER, Inland Empire Utilities Agency, Fontana, CA, USA

Ripple or Tsunami? Riding the Regulatory Wave to Safer Bottled Water and Water Beverages

Organizers: Frank Burns, Kathleen Lawlor and Mangesh Palekar
Convenors: Frank Burns and Kathleen Lawlor

FDA Regulations for Bottled Water and Water Beverages — HENRY KIM, U.S. Food and Drug Administration, College Park, MD, USA

Impact of New FDA Water Regulations on the Bottled Water Industry — BOB HIRST, International Bottled Water Association (IBWA), Alexandria, VA, USA

Formulating Water Beverages for Safety and Stability — WILFREDO OCASIO, The National Food Laboratory, Livermore, CA, USA

Government, Academic and Industry Collaborations to Advance the Development and Use of Microbiological Risk Assessments

Sponsored by the IAFP Foundation
Organizer: Sherri B. Dennis
Convenor: Sherri B. Dennis

Interagency Listeria Retail Risk Assessment — RÈGIS POUILLOT, Food and Drug Administration, College Park, MD, USA

Linking GIS and Risk Assessment: A Collaboration of FDA and NASA — DAVID ORYANG, Food and Drug Administration, College Park, MD, USA

A Web-based Comparative Risk Assessment Tool: iRISK — STEVEN M. GENDEL, Food and Drug Administration, College Park, MD, USA

Building Capacity in Risk Analysis and Food Safety through Partnerships — JULIANA M. RUZANTE, Joint Institute for Food Safety and Applied Nutrition, College Park, MD, USA


Use of the Salmonella on Almonds Risk Assessment to Guide Food Safety Decisions — RICHARD WHITING, Exponent, Inc., Bowie, MD, USA

Research Needs Roundtable: Retail and Foodservice Food Safety

Organizer: Donald W. Schaffner
Convenors: Donald W. Schaffner and Brian Nummer

Panel Discussion
JENNIFER QUINLAN, Drexel University, Philadelphia, PA, USA
LARRY KOHL, Food Marketing Institute, Arlington, VA, USA
ANN MARIE MCNAMARA, Jack in the Box, San Diego, CA, USA
DONALD SCHAFFNER, Rutgers University, New Brunswick, NJ, USA
KEVIN SMITH, FDA, College Park, MD, USA
T1  Applied Laboratory Methods and Novel Laboratory Methods Technical Session

**Convenors: Mark Carter and Purrendu C. Vasavada**

**T1-01**  Aspects of Systems Theory in the Analysis of Molecular-biological Based Detection Methods —

PETER ROSSMANITH and Martin Wagner, University of Veterinary Medicine Vienna, Christian Doppler Laboratory for Molecular Food Analytics, Vienna, Austria

10:00  Break

**T1-07**  Detection of *Listeria* spp. from Pooled Environmental Swab and Food Samples within 24 Hours Using Pathatrix Automated Re-circulating IMS Linked to Real-time PCR —

John Murray, Nicole Prentice, Katarzyna Brzegowa, Paul M. Benton, Brooke V. Houston, Ian Sheldrake, Michael F. Scott, Marcie Van Wart and ADRIAN PARTON, MATRIX MicroScience Inc., Golden, CO, USA

**T1-08**  Combined Thin Agar Layer and Centrifugation plating Method for Enumeration of Injured *Salmonella* —

Sangha Han and JULIAN M. COX, University of New South Wales, Faculty of Science, Sydney, NSW, Australia

10:45

**T1-09**  Combined Thin Agar Layer and Centrifugation plating Method for Enumeration of Injured *Salmonella* —

Sangha Han and JULIAN M. COX, University of New South Wales, Faculty of Science, Sydney, NSW, Australia

**T1-10**  Development of Multi-parametric Tools for the Detection and Identification of Sporeforming Bacteria in the Food Chain —

PATRICE CHABLAIN, Florence Postollec, Stephane Bonilla, Daniele Sohier and Sylvie Hallier-Soulier, Pall GeneSystems, R&D, Bruz, France

11:30

**T1-11**  Differentiation and Speciation of Vibrios by PCR of 16S-23S rRNA Intergenic Spacer Region —

MARIA HOFFMANN, Eric W. Brown, Peter C. Feng, Markus Fischer and Steven R. Monday, U.S. Food and Drug Administration, CFSAN, College Park, MD, USA

11:45

**T1-12**  Detection of Low Numbers of Only Viable Entero-bacteriaceae in Inoculated Pasteurized Milk Using Direct PCR after Ethidium Bromide Monoazide Treatment —

FRANK SCHLITT-DITTRICH, Takashi Soejima, Tomoko Yaeshima and Keji Iwatsuki, Morinaga Milk Industry Co., Ltd., Biological Function Research Dept., Kanagawa-Pref., Zama-City, Japan

**T1-02**  Utilization of Evolutionary Model, Bioinformatics and Heuristics for Development of a Multiplex *E. coli* O157:H7 PCR Assay —

FRANK R. BURNS and Jim Bono, DuPont, Wilmington, DE, USA

8:30

**T1-03**  A Novel Colorimetric Screening Assay for *E. coli* O157:H7 in Raw Ground Beef and Trim Utilizing Simultaneous Capture and *In Situ* Labeling during Automated Re-circulating IMS —

Nicole Prentice, John Murray, Paul M. Benton, Katarzyna Brzegowa, Brooke V. Houston, Ian Sheldrake, Michael F. Scott, Christine Aleski and ADRIAN PARTON, MATRIX MicroScience Ltd., Cambridgeshire, United Kingdom

8:45

**T1-04**  Sensitive and Rapid Detection of *Escherichia coli* O157:H7 in Food and Water —

PEIXUAN ZHU, Shuhong Li, Platte T. Amstutz, Daniel R. Shelton and Cha-Mei Tang, Creatv MicroTech, Inc., Potomac, MD, USA

9:00

**T1-05**  Identification of Shiga Toxin-producing *Escherichia coli* on DNA Microarrays by Using a Novel Photo-induced Signal Amplification Method —

BEATRIZ QUINONES, Ronald P. Haff, Amber W. Taylor and Erica D. Dawson, USDA-ARS, Western Regional Research Center, Produce Safety and Microbiology Research Unit, Albany, CA, USA

9:15

**T1-06**  Rapid Identification of *Listeria* Species: Comparison of a Real-time PCR Assay Versus Biochemical Galleries —

Nicolas Desroche, Jean Guzzo and PATRICE ARBAULT, BioAdvantage Consulting, Food Safety and Analytical Methods, Orliéñas, France

9:30

**T1-07**  Detection of *Listeria* spp. from Pooled Environmental Swab and Food Samples within 24 Hours Using Pathatrix Automated Re-circulating IMS Linked to Real-time PCR —

John Murray, Nicole Prentice, Katarzyna Brzegowa, Paul M. Benton, Brooke V. Houston, Ian Sheldrake, Michael F. Scott, Marcie Van Wart and ADRIAN PARTON, MATRIX MicroScience Inc., Golden, CO, USA

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11:45
### Less Recognized and Presumptive Pathogens: What Now, What Next?

**Organizers:** Reginald Bennett and Joshua Gurtler  
**Convenors:** Reginald Bennett and Joshua Gurtler  

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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Institution</th>
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<tbody>
<tr>
<td>1:30</td>
<td>Lesser Recognized Members of the Family <em>Enterobacteriaceae</em>, <em>Arcobacter</em> and <em>Helicobacter</em> — Purnendu C. Vasavada, University of Wisconsin-River Falls, River Falls, WI, USA</td>
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<td>2:00</td>
<td>Lesser Known Foodborne Viruses — Kalmia Kniel, College of Agriculture and Natural Resources, University of Delaware, Newark, DE, USA</td>
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<td>2:30</td>
<td>Infrequently Identified Food and Waterborne Parasites — Ynes Ortega, Center for Food Safety, University of Georgia, Griffin, GA, USA</td>
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### Buy Local? Addressing the Safety Issues Behind Green Food Trends

**Organizers:** Kirsten Hirneisen and Laura Strawn  
**Convenors:** Kirsten Hirneisen and Laura Strawn  

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<td>Living La Vida Locovore: Food Safety Concerns Associated with Emerging Food Trends — Benjamin Chapman, Dept. of 4-H Youth Development and Family and Consumer Sciences, North Carolina State University, Raleigh, NC, USA</td>
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<td>2:00</td>
<td>Bringing Food Safety from Local Farms and Markets to Your Table — Patricia Millner, USDA-ARS, Beltsville, MD, USA</td>
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<td>2:30</td>
<td>Comparison of Local/Slow/Organic Food Safety Versus Commercial Food Manufacturing Food Safety — Joan Menke-Schaenzer, ConAgra Foods, Inc., Omaha, NE, USA</td>
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### Good Agricultural Practices and the Small Scale Producer: What’s Really Going on out There?

**Organizers:** Rachel McEgan and Laura Strawn  
**Convenors:** Rachel McEgan and Laura Strawn  

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<td>3:30</td>
<td>Understanding the Need and Value of GAPs Implementation to Small Scale Producers — Elizabeth Bihn, New York State Agricultural Experiment Station, Dept. of Food Science and Technology, Cornell University, Geneva, NY, USA</td>
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### What’s Been Keeping You up at Night? — Selected Unanswered Food Safety Questions

**Organizer:** Lori Ledenbach  
**Convenor:** Purnendu C. Vasavada  

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<td>Raw Milk — Why are More and More People Drinking It? — Ronald Schmidt, University of Florida, Gainesville, FL, USA</td>
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<td>2:00</td>
<td>What Do We Have to Worry about Next with Viruses? Beyond Norovirus and Hepatitis — Lee-Ann Jaykus, Food, BioProcessing, and Nutrition Sciences, North Carolina State University, Raleigh, NC, USA</td>
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<td>2:30</td>
<td>How Did My Well-paid Auditor Miss That? Do I Have to Do Everything Myself? — Joseph Meyer, Food Safety, Kellogg Company, Battle Creek, MI, USA</td>
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<tr>
<td>3:00</td>
<td>Break</td>
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<td>3:30</td>
<td>COAs — A Thin Piece of Paper between Me and My Product’s Food Safety — Is There a Better Way? — Loralyn Ledenbach, Food Safety and Microbiology, Kraft Foods, Glenview, IL, USA</td>
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<td>4:00</td>
<td>Mycotoxins in Foods — Mary Truckseiss, FDA, College Park, MD, USA</td>
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<td>4:30</td>
<td>Mycobacterium avium paratuberculosis, <em>Helicobacter pylori</em> and Other Pathogens Associated with Gastrointestinal Illnesses, IBD and Cancer — Scott Wells, University of Minnesota, St. Paul, MN, USA</td>
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### Flour Food Safety: The Changing Landscape

**Organizer:** Skip Seward  
**Convenor:** Skip Seward  

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<td>1:30</td>
<td>The Microbiology of and Risks from Flour — Joe Shebuski, Cargill, Plymouth, MN, USA</td>
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<td>2:00</td>
<td>The Transformation of Specifications for Flour and Verification Testing to Ensure Compliance — Tim Jackson, Nestle, Glendale, CA, USA</td>
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<td>2:30</td>
<td>One Solution: Manufacturing RTE Flour — Ben Warren, ConAgra Foods, Omaha, NE, USA</td>
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S13

“Ingredient” is a Ten-letter Word for Financial Disaster

201CD

Sponsored by the IAFP Foundation

Organizers: Gloria Swick-Brown and Christina Wilson

Convenors: Gloria Swick-Brown and Christina Wilson

1:30 Overview of Foodborne Illnesses Associated with Ingredients — BILL MARLER, Marler Clark LLP PS, Seattle, WA, USA

2:00 Case Studies Including PCA Peanuts, Nestlé Cookie Dough, and Ground Beef — ALAN MAXWELL, Weinberg Wheeler Hudgins Gunn and Dial LLC, Atlanta, GA, USA

2:30 Causation, Negligence, Breach of Statutory or Regulatory Duties — D. ALAN RUDLIN, Hunton and Williams, Richmond, VA, USA

3:00 Break

3:30 Risks and Threats Added along with the Ingredients — MADELINE MCDONOUGH, Shook Hardy and Bacon LLP, Washington, D.C., USA

4:00 Apportioning Liability of Ingredients: How Responsible are You? — PAUL KASSIRER, Lester Schwab Katz and Dwyer, LLP, New York, NY, USA

4:30 Foodborne Illnesses and Recalls: The Effect on Industry — DAVID HERMAN, Grocery Manufacturers Association, Washington, D.C., USA

T2

Pathogens, Sanitation and Seafood Technical Session

303A

Convenors: Margaret Hardin and Marcos Sanchez

T2-01 Variation in Desiccation Tolerance among Salmonella Strains — REGINA C. WHITEMARSH, Aaron M. Gnas and Charles W. Kaspar, University of Wisconsin-Madison, Bacteriology, Madison, WI, USA

T2-02 Effect of Crust Freezing on the Survival of Escherichia coli and Salmonella Typhimurium in Raw Poultry Products — BYRON D. CHAVES-ELIZONDO, Inyee Y. Han and Paul L. Dawson, Clemson University, Food Science and Human Nutrition, Clemson, SC, USA

T2-03 Characterization of the Listeria monocytogenes Transcriptional Response to Synergistic Growth Inhibition by Potassium Lactate and Sodium Diacetate — MATT STASIEWICZ, Teresa M. Bergholz and Martin Wiedmann, Cornell University, Food Science, Ithaca, NY, USA

T2-04 High Pressure Inactivation of Noroviruses in Vegetables and Fruits — FANGFEI LOU, Huida Neeto, Haiqiang Chen and Jianrong Li, The Ohio State University, Dept. of Food Science and Technology, Columbus, OH, USA

T2-05 Phenotypic and Genotypic Characterization of Antimicrobial Resistance in Salmonella Serotypes Isolated from Retail Meats in Canada — MUEEN ASLAM, Valerie Bohaychuk, Gary Gensler, Richard Reid-Smith, Brent Avery and Patrick Boerlin, Agriculture and Agri-Food Canada, Lacombe Research Centre, Lacombe, AB, Canada

T2-06 Comparison of the rfb Cluster in 16 Rare Salmonella Serotypes — MATTHEW L. RANIERI, Andrea Moreno Switt, Henk C. den Bakker, Martin Wiedmann, Larkova Degoricija, Craig A. Cummings, Elena Bolchacova, Greg Govoni and Manohar R. Furtado, Cornell University, Food Science, Ithaca, NY, USA

T2-07 Sequences in the comK Prophage Junction Fragments Cluster Listeria monocytogenes Isolates of Epidemic Clones II, III and the 2008 Canadian Outbreak into Subclones That are Unique to Individual Meat and Poultry Processing Plants — MEI LOK, Yi Chen, Bindhu Varghese, Peter Evans, Sophia Kathariou and Stephen Knabel, Penn State University, Dept. of Food Science, University Park, PA, USA

T2-08 An ABC Transporter Regulates Biofilm Formation by Controlling the Expression and Modification of Cell Surface Proteins in Listeria monocytogenes — Xinna Zhu, Weibing Liu, René Lametsch, Frank M. Aarestrup, Chunlei Shi, Qunxin She, XIAMING SHI and Susanne Knochel, Dept. of Food Science, School of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai, China

T2-09 Maximizing Personnel Hygiene, Minimizing Washroom Contamination — John Holah and DEB L. SMITH, Campden BRI, Gloucestershire, United Kingdom

T2-10 Developing a Fish Starter Culture Fermentation with a Local Nisin-producing Bacterium for Application in Small-scale Artisan Fishery Production in Senegal — MICHEL B. DIOP, Jacqueline Destain, Maimouna Cisse, Ababacar S. Ndoye and Philippe Thonart, Ministère des Mines, de l’Industrie, de la Transformation Alimentaire des Produits Agricoles et des PME, Direction de la transformation alimentaire, Dakar, Senegal

T2-11 Characterization of a Fish-specific Monoclonal Antibody — YI-TIEN CHEN and Yun-Hwa Peggy Hsieh, Florida State University, Nutrition, Food, and Exercise Sciences, Tallahassee, FL, USA

T2-12 Characterization of Food and Clinical Listeria monocytogenes Isolates Collected in Portugal — JOANA BARBOSA, Vânia Ferreira, Rui Magalhães, Isabel Santos, Gonçalo Almeida, Paul Gibbs and Paula Teixeira, Escola Superior de Biotecnologia-Universidade Católica Portuguesa, CBQF, Porto, Portugal

T3

Antimicrobial and Microbial Food Spoilage Technical Session

201B

Convenors: Jitu Patel and Manpreet Singh

T3-01 Prevalence and Distribution of Salmonella in Organic and Conventional Broiler Poultry Farms — WALID ALALI, Siddhartha Thakur, Roy D. Berghaus, Michael Martin and Wondwossen A. Gebreyes, University of Georgia, Center for Food Safety, Griffin, GA, USA
Molecular Surveillance of Multi-antibiotic Resistant

1:45 **Staphylococcus aureus** and **Salmonella** Isolated from Co-op Rabbit and Poultry Processing Plants in Southeastern USA — LEONARD WILLIAMS and Olasunmbo Ajayi, North Carolina A&T State University, Center of Excellence for Post Harvest Technologies, Kannapolis, NC, USA

Prevalence and Antimicrobial Resistance of

2:00 **Campylobacter** Isolated from the National Antimicrobial Resistance Monitoring System Retail Meat: 2002—2007 — SHAOHUA ZHAO, Linda English, Jason Abbott, Emily Tong, Niketta Womack, Sharon Friedman and Patrick McDermott, U.S. Food and Drug Administration, Laurel, MD, USA

The Effect of Heat on the Antimicrobial Efficacy of Cinnamic Aldehyde, Carvacrol, and Eugenol —

2:15 GRISHMA KOTWAL and Faith J. Critzer, University of Georgia, Food Science and Tech., Griffin, GA, USA

Cinnamaldehyde Induces Cell Elongation in

2:30 **Escherichia coli** O157:H7 — Richard A. Holley and VISVALINGAM JEYACHANDRAN, University of Minnesota, Food Science, Winnipeg, MB, Canada

Can Hand Hygiene Regimens Offer Reduced Risk in Food Service Environments? — SARAH EDMONDS, Christopher Fricker and David Macinga, GOJO Industries, Research and Development, Akron, OH, USA

SaniTwice™: A Hand Hygiene Solution for Reducing Contamination on Heavily Soiled Hands When Water is Unavailable — SARAH EDMONDS, Robert McCormack, Christopher Fricker and David Macinga, GOJO Industries, Research and Development, Akron, OH, USA

Analysis of Plasmids and Mobile Elements Carrying Antimicrobial Resistance Genes in *Salmonella* Isolates by Whole Genome Sequencing — ANDREA I. MORENO SWITT, Matthew Ranieri, Henk den Bakker, Lovske Degoricija, Craig A. Cummings, Gregory Govoni, Elena Bolchakova, Manohar Furtado and Martin Wiedmann, Cornell University, Dept. of Food Science, Ithaca, NY, USA

Considering the Design and Analysis of Efficacy Trials for Antimicrobial Treatments of Raw Meat and Poultry — MARK POWELL, USDA, Washington, D.C., USA

Evaluation of a Predictive Model for Total Viable and Lactic Acid Bacteria on Refrigerated Vacuum-packed Beef Primals — MARK TAMPLIN, Alison Small, Sheila Peddell, Olivia McQuestin, Bianca Porteus, Danielle O’Callaghan, John Sumner and Ian Jenson, University of Tasmania, Food Safety Centre, Sandy Bay, TAS, Australia

Inactivation of *Bacillus coagulans* Spores in Tomato Juice by Pressure-assisted Thermal Processing — HOSSEIN DARYAEI, Chelsea Johnson and V. M. (Bala) Balasubramaniam, The Ohio State University, Food Science and Technology, Columbus, OH, USA

Non-thermal Pasteurization of Almonds and Pistachios with Organic Citrus Bioflavonoid Extracts — PEYMAN FATEMI, Cliff Coles and Yves Methof, Aurora Food Safety Solutions, Pleasanton, CA, USA

**3M Presents Key Trends in 21st Century Food Safety**

Featuring Speaker Frank Yiannas, Vice President Food Safety, Walmart

Food safety awareness is at an all time high worldwide as new and emerging threats to the global food supply are recognized. Producers at all levels of the food system have a growing responsibility to ensure that proper food safety practices are followed, thus safeguarding the health of their customers.

Achieving food safety success in this changing environment requires going beyond traditional training, testing, and inspectional approaches to managing risks. It requires a better understanding of today’s modern food system, emerging food safety issues, and leading-edge, harmonized prevention strategies.

Join us for this unique and entertaining perspective on key trends affecting the future of food safety.

Visit us at Booth #101.
TUESDAY MORNING  
AUGUST 3

S14  National Institute of Food and Agriculture Showcase  
Ballroom A
Organizer: Isabel Walls  
Convenors: Damanna Rao and Jan Singleton
8:30  Overview of National Institute of Food and Agriculture Food Safety — Related Programs and Activities — ISABEL WALLS, National Institute of Food and Agriculture, USDA, Washington, D.C., USA
9:00  Example of Research Program Funded by NIFA. Understanding Foodborne Viruses: The Results of 15 Years of USDA CSREES Funding — LEE-ANN JAYKUS, Dept. of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC, USA
9:30  Example of Education Program Funded by NIFA. Development of Education Programs for Susceptible Populations and Their Caregivers — LYDIA MEDEIROS, Dept. of Human Nutrition, The Ohio State University, Columbus, OH, USA
10:00  Example of Extension Program Funded by NIFA. Good Agricultural Practices: A Successful Extension/Outreach Program — BOB GRAVANI, Dept. of Food Science, Cornell University, Ithaca, NY, USA

S15  Risk-based Design of Microbiologically Safe Foods  
303BCD
Organizer: Nineteen Sawant  
Convenor: Martin Cole
8:30  Risk Assessment Approaches to Setting Thermal Processes in Food Manufacture — TIM JACKSON, Nestlé North America, Glendale, CA, USA
9:00  Practical Application of a Risk-based Approach for Reduction of Thermal Processes for Wet Soup Products — ALEJANDRO AMEZQUITA, Safety and Environmental Assurance Centre, Unilever, Bedford, United Kingdom
9:30  NCFST/FDA White Paper on FSO Application for Low-acid Canned Foods (An Alternative to the 12D Concept) — NATHAN ANDERSON, Division of Food Processing Science and Technology, NCFST/FDA, Washington, D.C., USA

S16  Significance and Detection of STEC or Non-O157:H7 Escherichia coli  
303BCD
Sponsored by the IAFP Foundation  
Organizer: Michael Brodsky  
Convenors: Michael Brodsky and Beatriz Quinones
10:30  The Epidemiology of Shiga Toxin-producing Escherichia coli as Human Pathogens — PINA FRATAMICO, ARS-USDA, Atlanta, GA, USA
10:45  Development of Novel Methods for the Detection of STEC — CHRISTINE ROZAND, Global R&D Industry, bioMérieux Industry, Marcy L’Etoile, France
10:55  Canada’s VTEC Research Network — ALEX GILL, Bureau of Microbial Standards, Health Canada, Ottawa, ON, Canada
11:05  STEC in the EU — STEFANO MORABITO, Dipartimento di Sanita Pubblica Veterinaria e Sicurezza Alimentare, Istituto Superiore di sanità, Roma, Italy
11:20  Transport and Persistence of Shiga Toxin-producing Escherichia coli at Produce Production Locations — MICHAEL COOLEY, Western Regional Research Center, USDA, Albany, CA, USA
11:35  Panel Discussion — JEFF FARBER, Bureau of Microbial Standards, Health Canada, Ottawa, ON, Canada

S17  The Salmonella Smorgasbord: The Problem with Too Many Choices  
204AB
Organizers: Paula Fedorka-Cray and Roger Cook  
Convenors: Paula Fedorka-Cray and Roger Cook
8:30  Niche Displacement: Can You Really Find a Renter? — PAULA FEDORKA-CRAY, USDA-ARS-BEAR, Athens, GA, USA
9:00  Country Specific Serotypes: Why Some Salmonella Never Seem to Travel — JULIAN COX, The University of New South Wales, Sydney, NSW, Australia
9:30  The Slugfest — Why Some Salmonella Outcompete Others — JASON RICHARDSON, Coca Cola, Atlanta, GA, USA
10:00  Break
10:30  Salmonella — A Regulatory Challenge for Industry? — BOB REINHARD, Sara Lee Corporation, Downer’s Grove, IL, USA
11:00  A Blast from the Past? Why We Need to Build a Better Host — SHAWN BEARSON, USDA-ARS-NADC, Ames, IA, USA
11:30  Give It Your Best Shot: The Chemical Control Conundrum — MARK BERRANG, USDA-ARS-BEAR, Athens, GA, USA

S18  European Concept on Hygiene Monitoring in the Food Supply Chain — ‘Farm to Fork’ Concept in Practice  
204C
Organizer: Helmut Steinkamp  
Convenor: Helmut Steinkamp
8:30  European Food Safety Standards — HELMUT STEINKAMP, Food Safety, German Institute of Food Technology, Quakenbrück, Germany
9:00  Monitoring of Food Safety in Practice — EBERHARD HAUNHORST, Lower Saxony State Office for Consumer Protection and Food Safety, Oldenburg, Germany
S19  International Food Safety Policies  
204C  
Organizer: Jeff Richardson  
Convenor: Jeff Richardson  
10:30 A Global Retailer’s Perspective of International Product Safety — Practical Approaches to Address Supply Chain Challenges — JAMES BALL, Delhaize Group, Brussels, Belgium  
10:45 The Impact of International Safety Policies on Trade — MOHAMMED RAWASHDEH, Jordan Food and Drug Administration, Amman, Jordan  
11:00 Effective Testing Management for Handling Global Product Safety Requirements — FLORIAN HEUPEL, Eurofins, Nantes, France  
11:15 Comparative Global Product Safety Obligations — The Pathway to Harmonization — KEES AELBERS, PepsiCo, Amsterdam, The Netherlands  
11:30 Utilizing Technology to Assure Global Product Safety — Reducing the Cost of Quality — WILLIAM PAPPAS, Alliance One International, Morrisville, NC, USA  
11:45 Gauging the Effectiveness of Our Global Product Safety System — Our Next Steps — TERRY STILLMAN, Alliance One International, Morrisville, NC, USA

S20  Food Packaging Technology: Opportunities and Challenges That Enhance Food Safety  
201CD  
Organizers: Darinka Djordjevic, Anthony Flood and Linda Leake  
Convenors: Darinka Djordjevic, Anthony Flood and Linda Leake  
8:30 Food Packaging Technology: A Brief Overview of the Advancements That Have Impacted Food Safety — JOSEPH HOTCHKISS, School of Packaging, Michigan State University, East Lansing, MI, USA  
9:00 Identification of Possible Endocrine Disruptors in Food Packaging Materials — FORREST BAYER, The Coca-Cola Company, Atlanta, GA, USA  
9:30 Regulatory Process to Ensure the Safety of Food Packaging Materials — MICHELLE TWAROSKI, Food Packaging Division, U.S. Food and Drug Administration, College Park, MD, USA  
10:00 Break  
10:30 What Lies Ahead: A Look into Nanotechnology for Food Packaging Applications — ROBERT BRACKETT, Grocery Manufacturers Association, Washington, D.C., USA  
11:00 Putting Chemical Risks in Perspective for Consumers — CARL WINTER, Dept. of Food Science and Technology, University of California - Davis, Davis, CA, USA

T4  Produce Technical Session  
303A  
Convenors: Michelle Danyluk and Trevor Suslow  
T4-01 Field Assessment of Surface Contamination and  
8:30 Systemic Transference of an Attenuated Salmonella Typhimurium to Melon Fruit from Controlled Contamination of Irrigation Water — TREVOR SUSLOW, Adrian Sbodio, Alejandro Tomás-Callejas, Francisco López-Gálvez and Sharyn Maeda, University of California-Davis, Plant Sciences, Davis, CA, USA  
T4-02 Tracking an Escherichia coli O157:H7 Contaminated Batch of Leafy Greens through a Commercial Processing Line — ANNEMARIE L. BUCHHOLZ, Gordon R. Davidson, Rudolph E. Sloup, Bradley P. Marks, Ewen C. Todd and Eliot T. Ryser, Michigan State University, Food Science and Human Nutrition, East Lansing, MI, USA  
T4-03 Recovery of Escherichia coli O157:H7 from Inoculated Spinach Fields as Affected by Inoculum Dose, Plant Material and Environmental Conditions — EDUARDO GUTIÉRREZ-RODRÍGUEZ, Steven Koike, Michael Cahn and Trevor Suslow, University of California-Davis, Plant Science, Davis, CA, USA  
T4-04 Molecular Ecology of Listeria spp., Salmonella, Escherichia coli O157:H7, and Non-O157 Shiga Toxin-producing E. coli in Northern Colorado Wilderness Areas — CHRISTINA AHLSTROM, Clyde Manuel, Kelly Horgan, Martin Wiedmann and Kendra Nightingale, Colorado State University, Animal Science, Fort Collins, CO, USA  
T4-05 Development of a Simple Method to Detect Coliphages in Fresh Produce as Evidence of Fecal Contamination — CHOII-OK R. WONG and Fu-Chih Hsu, Scientific Methods Inc., Granger, IN, USA  
T4-06 Internalization of Murine Norovirus-1 to Romaine Lettuce — JIE WEI, Yan Jin, Tom Sims and Kalmia Hsu, University of Delaware, Animal and Food Sciences, Newark, DE, USA  
T4-07 Hydroponic Internalization of Enteric Viruses into Green Onions and Spinach — KIRSTEN A. HIRNEISEN and Trevor V. Suslow, University of California-Davis, Plant Sciences, Davis, CA, USA  
T4-08 Controlled Environment Assessment of Preharvest Internalization and Transference of Salmonella into Melon Vines from Irrigation Water Using a Tube Nucleation Assay — CAROL B. D’LIMA, Kin H. Tan and Trevor V. Suslow, University of California-Davis, Plant Science, Davis, CA, USA  
T4-09 The Effect of Total Organic Carbon Content and Repeated Irrigation on the Persistence of Escherichia coli O157:H7 on Baby Spinach — DAVID T. INGRAM, Cheryl Mudd, Sean Ferguson, Dallas Hoover, Kalmia E. Kniel and Manan Sharma, USDA-ARS, Environmental Microbial and Food Safety Laboratory, Beltsville, MD, USA
T4-10  Effect of Modified Atmosphere on Persistence and Virulence Expression of *Escherichia coli* O157:H7 on Shredded Lettuce — Sudesna Lakshman, Sean Ferguson, David T. Ingram, Jitendra R. Patel, Yaguang Luo and MANAN SHARMA, USDA-ARS, Environmental Microbial and Food Safety Laboratory, Beltsville, MD, USA

T4-11  Inactivation of *Escherichia coli* O157:H7 on Spinach and Parsley Using Low-energy X-ray Irradiation — SCOTT R. MOOSEKIAN, Sanghyup Jeong, Bradley P. Marks and Elliot T. Ryser, Michigan State University, Food Science and Human Nutrition, East Lansing, MI, USA

T4-12  Inactivation of *Salmonella* on Tomato Surfaces Using Gaseous Chlorine Dioxide Treatment — BASSAM A. ANNOUS, Angela Burke and Joseph E. Sites, U.S. Dept. of Agriculture, ARS-ERRC, Food Safety Intervention Technologies, Wyndmoor, PA, USA

T5  Meat and Poultry Technical Session

**201B**

Convenors: Randall Phebus and Harshavardhan Thippareddi

T5-01  Time-temperature Dependent Growth Patterns of *Salmonella* spp. in a Model Food System with Natural Microflora — AMIT MOREY, Shelly R. McKee and Manpreet Singh, Auburn University, Dept. of Poultry Science, Auburn, AL, USA

T5-02  Analysis of ALLRTE and RTE001 Sampling Results for *Salmonella* Species, Calendar Years 2005–2008 — KRISTINA E. BARLOW, Stephen W. Mamber, TIM B. MOHR and Evelyne Mbandi, USDA-FSIS, Washington, D.C., USA

T5-03  Molecular Characterization and Serotyping of *Salmonella* Isolated from the Shell Egg Processing Environment — MICHAEL MUSGROVE, Karen L. Liljebjelke, Kimberly D. Ingram and Arthur Hinton, USDA-ARS, Egg Safety and Quality Research Unit, Athens, GA, USA

T5-04  Persistent and Sporadic *Listeria monocytogenes* Strains in Fermented Meat Sausage Processors — VANIA FERREIRA, Joana Barbosa, Kitiya Yongkamjan, Andrea Moreno Switt, Tim Hogg, Paul Gibbs, Paula Teixeira and Martin Wiedmann, Escola Superior de Biotecnologia, CBQF, Porto, Portugal

T5-05  Impact of Chlorine and Temperature on *Listeria monocytogenes* Survival Growth Behavior on Ready-to-Eat Meats — SHIOWSHUH SHEEN, Cheng-An Hwang and Vijay Juneja, USDA-ARS-ERRC, Wyndmoor, PA, USA

T5-06  Comparison of Data from FSIS Routine and Intensified Sampling Programs for *Listeria monocytogenes* from Ready-to-Eat Establishments — KRISTINA E. BARLOW, Stephen W. Mamber, Evelyne Mbandi and Tim B. Mohr, USDA-FSIS, Washington, D.C., USA

T5-07  Comparison of a Novel Sample Collection Device and Cellulose Sponge for the Collection of *Escherichia coli* from Beef Carcasses — KEVIN CHURCH, Jared G. Maughan, Kelly M. Tesar and Amanda S. Vos, Microbial-Vac Systems, Inc., Jerome, ID, USA

T5-08  Three Sampling Methods to Recover Bacterial Populations on Beef Trimmings in Commercial Settings — MICHAEL DE LA ZERDA, Mansour Samadpour and Mohammad Koomaraine, IEH Laboratories and Consulting Group, Meat Division, Lake Forest Park, WA, USA

T5-09  Prevalence of *Clostridium difficile* in Various Types of Ground Meat and Poultry Products — Jeff Bussey, Clarissa Sugeng, Jeffrey M. Farber and JOHN AUSTIN, Health Canada, Bureau of Microbial Hazards, Ottawa, ON, Canada

T5-10  The Control of *Salmonella* Typhimurium in Poultry: From Vaccination to Specific Immunotherapy — ANTHONY PAVIC, Peter Groves and JULIAN M. COX, University of New South Wales, Faculty of Science, Sydney, NSW, Australia

T5-11  Enhanced Recovery of *Campylobacter jejuni* from Chick Paper under Hatchery Incubation Conditions — JEREMY W. CHEN, Anthony Pavic and JULIAN M. COX, University of New South Wales, Faculty of Science, Sydney, NSW, Australia

T5-12  Validation of a High Throughput DNA Extraction and Real-time PCR Detection of *Escherichia coli* O157:H7, *Salmonella* spp., *Listeria monocytogenes* and *Listeria* spp. — WENDY LAUER and Jean-Philippe Tourniaire, Bio-Rad Laboratories, Hercules, CA, USA

T5-01  Time-temperature Dependent Growth Patterns of *Salmonella* spp. in a Model Food System with Natural Microflora — AMIT MOREY, Shelly R. McKee and Manpreet Singh, Auburn University, Dept. of Poultry Science, Auburn, AL, USA
TUESDAY AFTERNOON
AUGUST 3

IAFP Business Meeting • 12:15 p.m. – 1:00 p.m.

- Welcome and Introduction
  LeeAnn Jaykus, President-Elect
- Moment of Silence
  Vickie Lewandowski, President
- Call to Order
  Vickie Lewandowski, President
- Minutes of the 2009 Business Meeting
  Vickie Lewandowski, President
- President’s Report
  Vickie Lewandowski, President
- Report of Committees
  Tellers, Linda Harris
  JFP Management, Margaret Hardin
  FPT Management, Julian Cox
  Foundation, Gale Prince
- Report of the Affiliate Council
  Dan Erickson, Affiliate Council Chairperson
- Report of the Executive Director
  David Tharp, Executive Director
- Unfinished Business
- New Business
- Adjournment
  Vickie Lewandowski, President

S21 The Emergence of Non-culture Diagnostics and Their Impact on Global Foodborne Disease Surveillance
Ballroom A

Sponsored by ILSI North America Technical Committee on Food Microbiology
Convenor: Bala Swaminathan

1:30 Introduction to the Symposium — MARGUERITE NEILL, Division of Infection Diseases, Brown Medical School and Memorial Hospital of Rhode Island, Pawtucket, RI, USA

2:00 Challenges and Opportunities for Effective National and Global Foodborne Disease Surveillance — ANDREA ELLIS, Dept. of Food Safety, Zoonoses and Foodborne Diseases, World Health Organization, Geneva, Switzerland

2:30 Challenges in Surveillance and Investigation of Foodborne Diseases — TIMOTHY F. JONES, Tennessee Dept. of Health, Nashville, TN, USA

3:00 Break

3:30 The Emergence of Non-culture Diagnostics and their Impact on Global Foodborne Disease Surveillance — JOHN BESSER, Centers for Disease Control and Prevention, Enteric Diseases Laboratory Branch, Atlanta, GA, USA

4:00 CholDiNet — A Global Effort to Enhance Laboratory Capacity and Coordinate Laboratory Response to Cholera and Diarrheal Diseases — G. BALAKRISH NAIR, National Institute of Cholera and Enteric Diseases, Beliaghata, India

4:30 Panel Discussion

S22 Food and Food Environment Test Considerations in View of Changing Regulations

Organizer: Jeffrey Kornacki
Convenors: Jenny Scott and Jeffrey Kornacki

1:30 New and Emerging Food Safety Regulations Related to Testing, Records Access and the Food Registry — DON ZINK, Food and Drug Administration, College Park, MD, USA

2:00 The Importance of Science-based Environmental Testing Programs — MARK MOORMAN, Kellogg’s, Battle Creek, MI, USA

2:30 How New and Anticipated Regulations Will Impact Industry Testing Programs — JOHN LEMKER, K & L Gates, Chicago, IL, USA

3:00 To Test or Not to Test — ROBERT BRACKETT, Grocery Manufacturers Association, Washington, D.C., USA

3:30 Indicator Organisms, Assays and Their Usefulness — TIM FRIER, Cargill, Minnetonka, MN, USA

4:00 Practical Uses of a Molecular Assay Approach for Listeria-like Organisms in Food Processing Plant Environments — MASI RAJIBI, ABC Research, Gainesville, FL, USA

4:30 An Indicator Approach to Enteric Contamination of At-risk Foods — JEFFREY KORNACKI, Kornacki Microbiology Solutions, Inc., McFarland, WI, USA

S23 Way Before the Fork: Impact of Pre-harvest Management Programs and Supply Chain Influences on the Control of Shiga Toxin-producing Escherichia coli Contamination in Beef

Ballroom A

Sponsored by Pall GeneSystems and the IAFP Foundation
Organizer: Linda Leake
Convenors: Michelle Rossman and Manpreet Singh

1:30 Risk Assessment of E. coli O157:H7 and Other STEC on the Farm — JAMES DICKSON, Dept. of Animal Science and Interdepartmental Program in Microbiology, Iowa State University, Ames, IA, USA

2:00 What’s Working and What’s Not Working to Reduce STEC Contamination of Beef with Pre-harvest Management Practices and Knowledge Gaps — GUY H. LONERAGAN, West Texas A&M University, Canyon, TX, USA

2:30 Global Perspective on Pre-harvest Food Safety to Minimize the Risk of STEC Contamination of Beef Products — STUART REID, Veterinary Medicine, University of Glasgow, Glasgow, United Kingdom
3:00  Break
3:30  Control Strategies Aimed at Reducing the Prevalence of *E. coli* O157:H7 in Cattle Feces — DAVID SMITH, University of Nebraska-Lincoln, Lincoln, NE, USA
4:00  Lessons Learned from the Evaluation of Pre-harvest Food Safety Programs to Minimize the Risk of STEC Contamination in Meat, in Some French Operations — PATRICE ARBAULT, BioAdvantage Consulting, Orlienas, France
4:30  Impact of *E. coli* O157:H7 on Public Health and the Possible Impact of Pre-harvest Control Programs in Cattle Operations in Decreasing Human Infections — PATRICIA M. GRIFFIN, Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases, Atlanta, GA, USA

**S24**

**Advances in Detection Technologies to Address Food Safety and Food Defense Needs**

*204C*

**Sponsored by the IAFP Foundation**

**Organizers:** Arun Bhunia and Linda Leake

**Convenors:** Arun Bhunia and Linda Leake

1:30  Evanescent Wave-based Sensor for Biothreat Agents and Toxins — ALEXANDER SIMONIAN, National Science Foundation, Biosensing and Bioengineering/ CBET, Arlington, VA, USA
2:00  Sensor Technologies for Pathogens and Toxins — DANIEL V. LIM, University of South Florida, Advanced Biosensors Laboratory, Tampa, FL, USA
2:30  Preparation and Multiplexed Analysis of Bacterial and Toxic Targets in Spiked Food Samples — CHRIS R. TAITT, Naval Research Institute, Center for Bio/Molecular Science and Engineering, Washington, D.C., USA
3:00  Break
3:30  Cell-based Assays and Light Scattering Sensors for Toxins and Pathogens — ARUN BUNIA, Purdue University, Dept. of Food Science, West Lafayette, IN, USA
4:00  DNA/RNA and Bacteriophage-based Molecular Sensor Technologies — BRUCE APPLEGATE, Purdue University, Dept. of Food Science, West Lafayette, IN, USA

**S25**

**Human Noroviruses: Attribution, Transmission and Control**

*201CD*

**Organizers:** Kalmia Kniel, Marlene Janes, Stephen Grove, Larry Cohen and Doris D’Souza

**Convenors:** Doris D’Souza and Stephen Grove

1:30  Foodborne Attribution of Noroviruses — JUDY GREIG, Public Health Agency of Canada, Guelph, ON, Canada
2:00  Integrated Monitoring and Control of Foodborne Viruses in European Food Supply Chains — NIGEL COOK, CSL, York, United Kingdom
2:30  Transfer and Control of Enteric Viruses on the Farm — CRISTOBAL CHAIDEZ, CIAD, Culiacan, Mexico
3:00  Break
3:30  Norovirus Cross-contamination during Food Service Procedures Used in the Preparation of Fresh Produce — ALVIN LEE, National Center for Food Safety and Technology, Chicago, IL, USA
4:00  How Much Does Person-to-Person Transfer of Enteric Viruses Contribute to Outbreaks — MOSHE DREYFUSS, FSIS, Washington, D.C., USA
4:30  The Impact of Sanitizers, Hand Transmission, and Produce Washing — JAMES ARBOGAST, GOJO Industries, Akron, OH, USA

**T6 Produce and Communication Outreach and Education Technical Session**

**303A**

**Convenors:** Kalmia Kniel and Manan Sharma

**T6-01 Pathogen Presence and Indicator Organism Levels during Turned Pile Composting of Broiler Litter and Aerated, Static Pile Composting of Mixed Feedstocks — ACHYUT ADHIKARI, Andy Bary, Craig Cogger and Karen Killinger, Washington State University, Food Science, Pullman, WA, USA**

1:30  DSC

**T6-02 Produce Microbial Quality is Associated with Surface Microbial Contamination in Paking Sheds: An Assessment of Risk Factors for Produce Contamination — JUAN LEON, Elizabeth C. Ailes, Kizee A. Etienne, Lynette M. Johnston, Lee-Ann Jaykus and Christine L. Moe, Emory University, Hubert Dept. of Global Health, Atlanta, GA, USA**

1:45  T6-03 Attachment, Persistence and Infectivity of Cryptosporidium parvum Oocysts in Fresh Produce — DUMITRU MACARISIN, Monica Santin, Gary Bauchan and Ronald Fayer, USDA-ARS, Environmental Microbial and Food Safety Laboratory, Beltsville, MD, USA

2:00  T6-04 Efficacy of Commercial Produce Sanitizers against *Escherichia coli* O157:H7 in a Pilot-scale Leafy Green Processing Line — GORDON R. DAVIDSON, Annemarie L. Buchholz, Paul J. Sirmeyer, Ewen C. Todd and Elliot T. Ryser, Michigan State University, Food Science and Technology, Columbus, OH, USA

2:15  T6-05 Enhanced Removal of Noroviruses from Fresh Fruits and Vegetables by Combination of Surfactants and Sanitizer — ASHLEY PREDMORE, Claire Herbert and Jianrong Li, The Ohio State University, Dept. of Food Science and Technology, Columbus, OH, USA

2:30  T6-06 Columbus Public Health: 2009 Samuel J. Crumbine Consumer Protection Award Recipient — CHRISTINA R. WILSON, Columbus Public Health, Columbus, OH, USA

2:45  T6-07 Modifying the Behavior of Food Employees Using Educational Materials and Methods Designed for Oral Culture Learners — Alan M. Tart and JOANN PITTMAN, FDA, Office of Regulatory Affairs, Atlanta, GA, USA

3:00  T6-08 Applying GFSI Recognized Management Systems to the Peanut Industry — A Case Study — John G. Surak, Patrick Archer, TATIANA A. LORCA, Rena Pierami and Rhonda Starling, EcoSure (A Division of Ecolab Inc.), St. Paul, MN, USA

3:15  T6-09 Cannabis and the Food Industry: An Introduction — JAMES MCNAUGHT, BDS, RPh, Derry, NH, USA

3:30  T6-10 Food Safety and Technology, Chicago, IL, USA
<table>
<thead>
<tr>
<th>Time</th>
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<td>T7-08</td>
<td>The Potential for Cross-contamination of Foods through Improper Storage in Home Refrigerators</td>
<td>Sandria Godwin, Fur-Chi Chen, Richard Stone, Edgar Chambers and Delores Chambers, Tennessee State University, Family and Consumer Sciences, Nashville, TN, USA</td>
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<td>Network Science Methods to Analyze Food Import Export Networks</td>
<td>József Baranyi, Mária M. Ercsey-Ravasz, Zoltán Toroczkai and Zoltán Lakner, Institute of Food Research, Computational Microbiology, Norwich, United Kingdom</td>
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<td>Fernando Perez Rodriguez, Antonio Valero, Elena Carrasco, Ewen Todd, Guiomar Denisse Posada Izquierdo, Andres Morales Rueda, Rosa Maria Garcia-Gimeno and Gonzalo Zurer, University of Cordoba, Dpto Bromatologia y Tecnologia Alimentos, Cordoba, Spain</td>
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<td>Modeling Logistics in Quantitative Microbial Risk Assessment for Salad Bars</td>
<td>Seth-Oscar Tromp, Hajo Rijgersberg and Eelco Franzi, RIVM – Centre for Infectious Disease Control, Laboratory for Zoonoses and Environmental Microbiology, Bilthoven, The Netherlands</td>
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<td>Predictive Modeling for <em>Listeria monocytogenes</em> Transfer during Slicing of Delicatessen Meats</td>
<td>Keith Vorst, Lindsey Keskinen, Gary Burgess, Jeff Danes and Elliot Ryser, Cal Poly State University, Industrial Technology and Packaging, San Luis Obispo, CA, USA</td>
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<td>T7-03</td>
<td>FSIS <em>Escherichia coli</em> O157:H7 Beef Establishment Risk-assessment Project</td>
<td>James L. Withee, Eric Oebel, W. T. Disney, Dare Akingbade, Michael S. Williams, Wayne D. Schlosser, Nathan J. Bauer, Janell R. Kause, John M. Hicks, William K. Shaw, Jennifer Webb and Denise R. Eblen, USDA-FSIS, Washington, D.C., USA</td>
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<td>T7-01</td>
<td>Application of Kinetic Models to Describe Heat Inactivation of Selected New Zealand Isolates of <em>Campylobacter jejuni</em></td>
<td>Ali M. AL-Sakkaf, Geoff Jones and John Mawson, Massey University, Institute of Food, Nutrition and Human Health, Palmerston North, New Zealand</td>
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<td>T6-12</td>
<td>Examining Consumers’ Perceptions of Nanotechnology for Food Safety: A Baseline Study</td>
<td>Mary Oscar, USDA-ARS, Princess Anne, MD, USA</td>
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<td>The Knowledge and Behavior of Parents of Young Children Concerning Domestic Food Safety</td>
<td>Louise Fielding and Aoife O’Gorman, UWIC, Cardiff School of Health Sciences, Cardiff, United Kingdom</td>
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<td>Assessing Vegetable Producers’ Beliefs Regarding Food Safety Issues</td>
<td>Melanie L. Ivey, Jeffrey Lejeune and Sally A. Miller, The Ohio State University, Plant Pathology, Wooster, OH, USA</td>
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<td>T7-04</td>
<td>Predictive Modeling for <em>Listeria monocytogenes</em> Transfer during Slicing of Delicatessen Meats</td>
<td>Keith Vorst, Lindsey Keskinen, Gary Burgess, Jeff Danes and Elliot Ryser, Cal Poly State University, Industrial Technology and Packaging, San Luis Obispo, CA, USA</td>
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<td>1:45</td>
<td>T7-03</td>
<td>FSIS <em>Escherichia coli</em> O157:H7 Beef Establishment Risk-assessment Project</td>
<td>James L. Withee, Eric Oebel, W. T. Disney, Dare Akingbade, Michael S. Williams, Wayne D. Schlosser, Nathan J. Bauer, Janell R. Kause, John M. Hicks, William K. Shaw, Jennifer Webb and Denise R. Eblen, USDA-FSIS, Washington, D.C., USA</td>
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<td>1:30</td>
<td>T7-01</td>
<td>Application of Kinetic Models to Describe Heat Inactivation of Selected New Zealand Isolates of <em>Campylobacter jejuni</em></td>
<td>Ali M. AL-Sakkaf, Geoff Jones and John Mawson, Massey University, Institute of Food, Nutrition and Human Health, Palmerston North, New Zealand</td>
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<td>1:00</td>
<td>T6-12</td>
<td>Examining Consumers’ Perceptions of Nanotechnology for Food Safety: A Baseline Study</td>
<td>Mary Oscar, USDA-ARS, Princess Anne, MD, USA</td>
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<td>1:00</td>
<td>T6-11</td>
<td>The Knowledge and Behavior of Parents of Young Children Concerning Domestic Food Safety</td>
<td>Louise Fielding and Aoife O’Gorman, UWIC, Cardiff School of Health Sciences, Cardiff, United Kingdom</td>
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<td>0:45</td>
<td>T6-10</td>
<td>Assessing Vegetable Producers’ Beliefs Regarding Food Safety Issues</td>
<td>Melanie L. Ivey, Jeffrey Lejeune and Sally A. Miller, The Ohio State University, Plant Pathology, Wooster, OH, USA</td>
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<td>0:30</td>
<td>T6-09</td>
<td>The Economic Cost of Foodborne Illness from Contaminated Produce in the USA</td>
<td>Robert Schaff, The Ohio State University, Consumer Sciences, Columbus, OH, USA</td>
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S28 Foodborne Disease Outbreak Update

204AB

Organizer: Jack Guzewich
Convenor: Jack Guzewich

8:30 Multi-state Outbreak of Salmonella Rissen Associated with Ground White Pepper — The Epidemiologic Investigation — JEFFERY HIGA, Colorado Dept. of Public Health and Environment, Communicable Diseases, Denver, CO, USA

9:00 Multi-state Outbreak of Salmonella Rissen Associated with Ground White Pepper — The Environmental Investigation — MAHA HAJMEER, California Dept. of Public Health, Food and Drug Branch, Sacramento, CA, USA

9:30 Multi-drug Resistant Salmonella in Ground Beef Outbreaks — SHAUN COSGROVE, Colorado Dept. of Public Health and Environment, Communicable Diseases, Denver, CO, USA

10:00 Break

10:30 FSIS Investigation of Multidrug-resistant Salmonella Outbreak — SCOTT SEYS, USDA-FSIS, Office of Public Health, Minneapolis, MN, USA

11:00 Epidemiologic Investigation of E. coli O157:H7 in Cookie Dough — MARK SOTIR, Centers for Disease Control and Prevention, Outbreak Response and Prevention Branch, Atlanta, GA, USA

11:30 Company Investigation of the Cookie Dough Outbreak — TIMOTHY JACKSON, Nestle, Glendale, CA, USA

S29 Maintaining Consumer Market Continuity during Animal Disease Outbreaks

204C

Organizers: Timothy Clouse and Todd McAloon
Convenor: Todd McAloon

8:30 Development of the Secure Egg Supply Plan — TODD MCAALOON, Cargill Animal Protein, Minneapolis, MN, USA

9:00 Risk Assessment Process and Animal Food/Trade and Protect Health — JON ZACK, USDA APHIS, Riverdale, MD, USA

9:30 The FAST Eggs Plan: Protecting Poultry Health, Public Health, and the Food Supply — DARRELL TRAMPEL, Iowa State University, Ames, IA, USA

10:00 Break

10:30 Government’s Role to Contain Disease, Maintain Trade and Protect Health — HOWARD MAGWIRE, United Egg Producers, Washington, D.C., USA

11:00 Industry’s Role to Contain Disease, Protect Health and Maintain Consumer Confidence — HOWARD MAGWIRE, United Egg Producers, Washington, D.C., USA

11:30 Industry, Government and Academia Collaboration to Achieve Common Goals — WILLIAM HUESTON, University of Minnesota, St. Paul, MN, USA
A Practical Approach to Risk Communication: Engaging Stakeholders and the Public
201B

Organizer: Anthony Flood
Convenor: Jeffrey Farber

8:30 Principles and Best Practices in Risk Communication: An Overview — ANDY BENSON, International Food Information Council, Washington, D.C., USA
9:00 Risk Communication in Europe: Guidelines for Risk Communication — JEAN KENNEDY, European Food Information Council, Brussels, Belgium
9:30 Risk Communication Case Studies on Acrylamide and Other Food Components — CARL WINTER, University of California-Davis, Dept. of Food Science and Technology, Davis, CA, USA
10:00 Break
10:30 Communicating Food Risks in SE Asia: A Case Study — PETER BEN EMBAREK, World Health Organization, Dept. of Food Safety, Zoonoses and Foodborne Illness, Beijing, China
11:00 Risk Communication for South American Audiences — GENARO W. GARCIA, Centro Panamericano de Fiebre Aftosa, Health Surveillance and Disease Management, São Bento, Brazil
11:30 Risk Communication: The U.S. FDA Perspective — MARJORIE DAVIDSON, U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, College Park, MD, USA

Setting the Science-based Agenda for Co-management of Watershed Quality and Produce Safety
201CD

Organizers: Elizabeth Bihn, Michelle Danyluk and Trevor Suslow
Convenors: Elizabeth Bihn, Michelle Danyluk and Trevor Suslow

8:30 Overview of Challenges in Co-management; Impacts on the Ground — CHRISTINA FISHER, The Nature Conservancy, Arlington, VA, USA
9:00 Role of Non-crop Vegetation and Run-off Management in Watershed Quality — DANIEL MOUNTJOY, USDA, Natural Resources Conservation Service, Salinas, CA, USA
9:30 Role of Wildlife as Vectors of Foodborne Pathogens; Exposing Myth and Denial — MICHELLE JAY-RUSSELL, University of California-Davis, Western Institute for Food Safety and Security, Davis, CA, USA
10:00 Break
10:30 Application of Microbial Source Tracking to Co-management at a Regional Scale — JEFFERY LEJEUNE, The Ohio State University, Dept. of Veterinary Preventive Medicine, Wooster, OH, USA
11:00 Building a Database for Integrated Assessments of Co-management — MICHAEL BATZ, University of Florida, Emerging Pathogens Institute, Gainesville, FL, USA
11:30 Current, Emerging, and Hidden Safety Standards; Will Science Play a Role? — TIM YORK, Markon Cooperative, Salinas, CA, USA
S32  Bacterial Toxins: A Past or an Emerging Issue for Food and Beverage Safety?
Ballroom A
Sponsored by Pall GeneSystems and the IAFP Foundation
Organizers: Frank Burns and Purnendu C. Vasavada
Convenors: Patrice Arbault and Julian Cox

1:30  A Brief Introduction to the Bacterial Toxins — PATRICE ARBAULT, Food Safety and Analytical Methods, BioAdvantage Consulting, Orliénas, France
1:35  Staphylococcal Enterotoxins — An Underestimated Threat? — SANDRA TALLENT, FDA, Division of Microbiology, College Park, MD, USA
2:05  Bacillus — A Two-faced Toxigenic Foodborne Foe — JULIAN COX, University of New South Wales, Faculty of Science, Sydney, NSW, Australia
2:35  Atypical EPEC — A Growing Public Concern — STEFANO MORABITO, Istituto Superiore di Sanità, Rome, Italy
3:05  Botulinum Toxins — A Rising Threat in Our Meals? — ERIC JOHNSON, University of Wisconsin-Madison, Dept. of Bacteriology — Food Research Institute, Madison, WI, USA

S33  Tools for Predictive Microbiology and Microbial Risk Assessment
303BCD
Sponsored by the IAFP Foundation
Organizers: Leon Gorris and Vijay Juneja
Convenors: Leon Gorris and Vijay Juneja

1:30  An Update on USDA Predictive Microbiology Information Portal, Pathogen Modeling Program and Combase — VIJAY JUNEJA, USDA, Wyndmoor, PA, USA
2:00  Emerging Decision Support Tools for Food Safety in the U.S. — LEE-ANN JAYKUS, North Carolina State University, Dept. of Food, Bioprocessing and Nutrition Sciences, Raleigh, NC, USA
2:30  FAO/WHO Risk Assessment Tools — SARAH CAHILL, FAO, Rome, Italy
3:00  Prioritizing Foodborne Risks Using Risk Ranger for Risk Profiling — PANAGIOTIS N. SKANDAMIS, Agricultural University of Athens, Dept. of Food Science and Technology, Athens, Greece

S34  WHO’s Epidemiological Approach to Estimating Foodborne Diseases — WHO FERG
204AB
Sponsored by the IAFP Foundation
Organizers: Frederick Angulo, Aamir Fazil, Tine Hald and Fumiko Kasuga
Convenors: Frederick Angulo and Fumiko Kasuga

1:30  What is WHO FERG and Why Estimate the Global Burden of Foodborne Diseases? — CLAUDIA STEIN, World Health Organization, Food Safety and Zoonoses, Geneva, Switzerland
2:00  DALYs and More Than DALYs — ARIE HAVELAAR, RIVM, Bilthoven, The Netherlands
2:30  What Can Food Safety Experts Expect from and Do for WHO FERG? — Policy Maker — DANIEL ENGELJOHN, USDA OPPD FSIS, Washington D.C., USA
3:00  What Can Food Safety Experts Expect from and Do for WHO FERG? — Industry — VANESSA CRANFORD, Walt Disney Inc., Buena Vista, FL, USA

S35  New Definitions in Imported Seafood Safety
204C
Sponsored by the IAFP Foundation
Organizers: Kathleen Rajkowski and Barbara Blakistone
Convenor: Kathleen Rajkowski

1:30  Statistics of Seafood Imports in the USA, the EU and Canada — BARBARA BLAKISTONE, National Fisheries Institute, McLean, VA, USA
1:50  EU Concerns with Imports and How Europe is Assuring Seafood Safety for Its Consumers — PETER BEN EMBAREK, World Health Organization, Beijing, China
2:10  How Darden Restaurants Assures the Safety of Its Seafood — ANA HOOPER, Darden Restaurants, Winter Spring, FL, USA
2:30  Inter-agency Cooperation Initiatives with FDA and the Standardization Programs NOAA Monitors on Seafood Safety — STEVE WILSON, NOAA, Washington, D.C., USA
2:50  FDA’s Progress on Safety of Imported Seafood and Food Safety Legislation and Seafood — DON KRAEMER, Food and Drug Administration, Washington, D.C., USA

S36  Risk Benefit Analysis of Food Production and Consumption
201B
Sponsored by the IAFP Foundation
Organizer: Cristina Tirado-von der Pahlen
Convenor: Cristina Tirado-von der Pahlen

1:30  Introduction to Risk Benefit Analysis of Food Consumption and Production on Human Health and on Environmental Health — CRISTINA TIRADO-VON DER PAHLEN, University of California-Los Angeles, School of Public Health, Los Angeles, CA, USA
2:00  Health Risk and Benefit Assessment of Food Consumption on Health — International Approach — KAZUKO FUKUSHIMA, Food Safety, WHO, Geneva, Switzerland
2:30  Development of an Approach for the Risk Benefit Analysis of Foods and Food Component — BERNARD BOTTEX, EFSA, Scientific Committee, Parma, Italy
3:00  Risk Benefit Analysis: Results of the ILSI-BRAFO Case Studies — STÉPHANE VIDRY, ILSI Europe, Brussels, Belgium
Issues in the Production and Manufacture of Nuts and Nut-containing Products:
Nuts to You

Organizers: Susanne Keller and Linda Leake
Convenors: Susanne Keller and Linda Leake

1:30  Sanitation Practices for Nut Processes — MATILDA FREUND, Kraft Foods Global, Global Food Safety and Microbiology, Glenview, IL, USA

2:00  Microbiological Issues Associated with Nuts — LINDA J. HARRIS, University of California-Davis, Dept. of Food Science and Technology, Davis, CA, USA

2:30  Mycotoxin Issues Associated with Nuts — DOJIN RYU, Texas Women’s University, Nutrition and Food Sciences, Denton, TX, USA

3:00  New National and International Regulations Relative to Nuts, and Current Technologies Associated with Nut Processing to Comply with Regulations — TIM BIRMINGHAM, Almond Board of California, Quality Assurance/Industry Services, Modesto, CA, USA

CLOSING SESSION

4:00 p.m. — 4:45 p.m.
John H. Silliker Lecture — Ballroom A

Understanding Foodborne Microorganisms, A Matter of Perspective, Robert L. Buchanan, PH.D., Director and Professor, Center for Food Safety and Security Systems, College of Agriculture and Natural Resources, University of Maryland, College Park, Maryland