Illinois Institute of Technology’s (IIT) Institute for Food Safety and Health (IFSH)

Illinois Institute of Technology’s (IIT) Institute for Food Safety and Health (IFSH) is a one-of-a-kind applied food research institute that provides stakeholders in government, industry and academia the opportunity to develop and exchange knowledge and expertise to address key issues in food safety, food defense and nutrition. Located at IIT’s Moffett Campus in Bedford Park, IL, IFSH is also home to the FDA CFSAN Division of Food Processing Science and Technology. For more information, visit https://www.ifsh.iit.edu/.

Food Research Institute (FRI)

The Food Research Institute (FRI) is the portal to food safety at the University of Wisconsin-Madison. Housed within the College of Agricultural and Life Sciences, FRI operates its own laboratories and administers its own research and service programs. FRI’s mission is to catalyze multidisciplinary and collaborative research on microbial foodborne pathogens and toxins and to provide training, outreach, and service to enhance the safety of the food supply. FRI is a leader in identifying and resolving food safety issues to meet community, government, and industry needs. For more information, visit https://fri.wisc.edu/.
IFSH/FRI VIRTUAL ANNUAL SYMPOSIUM
SEPTEMBER 27 -30, 2021

Environmental Controls: Emerging Technologies and Predictive Analytics to Address Complex Sanitation Challenges

INSERT SPONSOR NAME, LOGO, BRIEF BLURB WITH WEBPAGE LINK
Introduction to the Symposium

Dr. Leslie A. Smoot, Senior Advisor, Office of Food Safety, CFSAN, FDA

Dr. Leslie A. Smoot is an internationally recognized industry/regulatory food scientist with 40 years of experience and expertise in food safety, food microbiology, and product development support for processed foods. Most recently serving as a Senior Advisor (6 years) in OFS/CFSAN providing scientific and technical expertise to CFSAN and FDA in response to evolving policy, foodborne illness outbreaks, regulatory follow-up investigations, educational/outreach programs, risk-based research needs, and appropriate controls for hazards in processed foods to improve the safety of processed foods. In this role also leading the CFSAN Team in development of industry guidance for the Preventive Controls for Human Food rule.

Hygienic Zoning – A Pre-Requisite Program to Pathogen Monitoring

Duane Grassmann, Corporate Hygienist, Nestlé USA

Pathogen monitoring is actually verification of the many pre-requisite programs (PRP’s) that influence pathogens in our factories. Hygienic zoning is one of those PRP’s. Hygienic zoning supports our efforts to protect our products from contaminations originating in the factory environment. In other words, “keeping bad stuff from getting into sensitive areas of our factories”. A thoughtful hygienic zoning program is created through a thorough risk assessment, regularly monitored and routinely verified as being effective. This presentation will briefly cover the why behind the what of hygienic zoning, a risk assessment model, and some best practices.

Over the past 44 years, Duane Grassmann has made food manufacturing sanitation and industrial hygiene his primary focus. In his career, he has worked with countless factories in the US and Canada as well as having had significant hygiene related involvement in hundreds of factory engineering projects. In the last 14 years, he has held corporate roles at Nestlé USA and the Schwan Food Company. Prior to these corporate positions, he worked for 30 years with numerous companies in various factory sanitation management positions. He graduated from Indiana University with a BS in Business.
Decontamination of Low Moisture Food Processing Facilities
Richard Brouillette, Food Safety Director, Commercial Food Sanitation

Before discussing decontamination options, we will briefly discuss prevention and selecting hygienic design standard to apply to infrastructure and equipment in Low Moisture Food Processing Facilities. This is what we define as Valuation; making sure we understand hazards, needs, and standard to apply. Then, we will cover the selection criteria for the types of cleaning and sanitizing (dry, partially dry/wet, or wet) depending on the type of soil, equipment, infrastructure, and level of clean to achieve will be discussed before going into decontamination methods following events such as microbial contamination.

Richard Brouillette started as an industrial microbiologist more than 30 years ago, then moved to a corporate sanitation and quality roles, in which he was responsible for developing programs, procedures and training, working with internal manufacturing locations as well as with external manufacturers and suppliers. While working at Kraft Foods, he supported various food categories (Meat, Dairy, Pizza, Grocery, Bakery, Confectionary, etc.) allowing him to gain in-depth knowledge of different product categories. At Mondelez International, he headed an international team of 12 microbiologists. His responsibilities included risk assessments for new products and processes to ensure there would be no food safety issues; developing global food safety policies/programs and ensuring implementation at manufacturing locations across EMEA; and coordinating of the company’s global activities for microbiology. Richard joined Commercial Food Sanitation in 2014 as Food Safety Director. In his role, we work with a team of Food Safety Specialists offering consulting and training services to the food industry.

Managing Harborage Sites, Growth Niches, and Biofilms
Sue Schwartz, Vice President Quality & Food Safety, Miniat Holdings

This presentation is going to address the identification of potential harborage sites or growth niches, mitigating risks associated with identified sites of concern and the tools for identification and control of biofilm.

Sue Schwartz joined Miniat in 2016 as Vice President of Quality & Food Safety and has 30 years’ experience in food safety, quality assurance, and product development in the food industry. In her current role, Sue leads the QA teams within Miniat’s two business divisions, Ed Miniat LLC, and South Chicago Packing LLC. Prior to joining Miniat, Sue spent 19 years with a large, branded processor of RTE meat and poultry products, including 13 years in various plant quality assurance leadership roles.

Sue graduated from Purdue University with a B.S. in Agricultural Engineering.
Environmental monitoring is an essential part of a food safety system. Some critical factors in what and how to sample are sometimes overlooked when designing a monitoring program.

In this session, we will address a variety of topics including how sampling plans may differ by purpose, the type of surfaces, the reason for different sampling device types and/or sizes, and how these choices may influence downstream analysis. In addition, we will highlight some newer sampling devices and accessories and explain how they may be beneficial.

**Diana Stewart** joined FDA in 2001 as a biologist and is currently a Research Microbiologist in the Division of Food Processing Science & Technology at the Moffett Campus outside of Chicago, IL. Over the years she has worked on a wide variety of projects in developing and evaluating improved viral and bacterial pathogen analysis for foods, assessing recovery protocols for food processing environments, evaluating inactivation methods for pathogens in foods and studying the behavior and survival of pathogens in foods and the environment. Current projects are centered on assessing the effects of organic acid treatments on Listeria-contaminated peeled hard cooked eggs, and understanding the variables affecting recovery and detection of Listeria monocytogenes from environmental samples.
Overview of Traditional and Novel Environmental Testing – Pros and Cons
Dr. Scott Stillwell, President and CEO, Stillwell Consultative Services, LLC

Development of a Pathogen Environmental Monitoring Program (PEMP) must be predicated upon numerous prerequisite activities such as the Hazard Analysis, description of the Product, Process, and Team Member Traffic Flow, and Hygienic Zoning. The specific design of the PEMP offers numerous choices for target microorganisms for monitoring and method of sampling and analysis. This discussion topic will review the establishment of a PEMP and explore the relative Pros and Cons of different target microorganisms and sampling methods, as well as several novel approaches to sampling and investigative analysis.

As President and CEO of Stillwell Consultative Services, LLC, Dr. Scott Stillwell provides food safety consulting services focused on crisis resolution and prevention, data analytics and Statistical Process Control, serves as an expert witness in food safety-related litigation, and counsels venture equity fund managers pursuing growth opportunities in the food manufacturing and allied industries.

Prior to retirement, Scott was employed at Tyson Foods for 31 years, most recently as the Senior Vice President of Food Safety and Quality Assurance where he had enterprise-wide responsibility for the food safety and quality policies, procedures, and staff including regulatory compliance, laboratory services, consumer relations, and sanitation services. This group encompassed 145 domestic and international beef, pork, poultry, and prepared foods processing facilities and 3,500 dedicated food safety and quality assurance team members with responsibilities for ensuring compliance to company policies, procedures, programs, and regulatory requirements.

Scott is a past member of the Board of Directors for the Global Food Safety Initiative, he held a seat on the GS1-US Retail Grocery Initiative’s Executive Leadership Committee, he was a member of the Board of Directors of the Ozark Food Processing Association, a member of both the National Chicken Council and the National Turkey Federation Technical and Regulatory Committees; the North American Meat Institute Scientific Advisory Committee and Inspection Advisory Committee; a Secretarial appointee to the National Advisory Committee for Microbiological Criteria for Food; a member of the Retail Food Safety and Quality Professional Development Group at the International Association for Food Protection, the founding treasurer of the Arkansas Affiliate of IAFP; and served numerous terms on Council III of the Conference for Food Protection.
Effect of Sanitation on Microbiome and Relevance of Foodborne Pathogens during Produce Production

Dr. Ganyu Gu, Research Associate, USDA-ARS-EMFSL

In this presentation, he will talk about their collaborated studies with FDA in recent years related to sanitation and washing during produce production. His talk includes three topics: 1) Impact of routine sanitation on microbiomes in a fresh produce processing facility (Zone 3); 2) Dynamics of microbiota on spinach during chlorine washing and storage at refrigerated and abused temperatures; 3) Microbiome shift in leafy green wash water following sanitizer treatment.

Dr. Ganyu Gu is currently a Research Associate at USDA-ARS-EMFSL working on produce food safety. His work is focusing on produce microbiome and foodborne pathogens to better understand the microbial progression and ecology in field, on produce, and in the food production environment to improve food safety and quality of fresh and fresh-cut produce. Dr. Gu received PhD degree on Plant Bacteriology at Mississippi State University in 2010, and then worked at University of Florida and Virginia Tech on multiple food safety and microbiology projects before moving to USDA in 2016.

High-throughput Sequencing to Support Precision Food Safety – Using New Tools to Manage Risk during Processing

Nick Andrews, Head of Food Safety and Covid Defence, Dawn Farm Foods, Ireland

The era of next generation sequencing (NGS) has revolutionized the fields of disease outbreak investigation, food safety research and medical science, but also brings a very practical suite of techniques to the toolkit for managing the factory environment. Molecular subtyping has long provided value in tracking and tracing microbiological contamination, and NGS greatly improves the precision of subtyping, gives valuable insight into the level of risk posed by a detected pathogen, and opens the door to revealing the complete microflora within the built environment and how this may relate to the quality and safety of the foods being produced. With judicious application these tools can greatly assist in controlling the processing environment, and can play a leading role in consumer and brand protection.

Nick Andrews is Head of Food Safety and Quality for Dawn Farm Foods, Europe's largest multi-species producer of cooked and fermented meat ingredients for the food service and food manufacturing industries. A Chartered Engineer, he has a primary degree in science from Liverpool University, and has worked in Food Safety, QA, Production and Management Consultancy roles for over 30 years. Nick heads a team of food safety and science professionals in assuring the production of safe ready-to-eat foods, and the safety and integrity of the company’s and its clients’ brands, and is engaged in a Doctorate programme with the University College Dublin Centre for Food Safety researching the application of Whole Genome Sequencing technologies in controlling foodborne pathogens and spoilage organisms in the food processing environment.
Putting EMP Data to Work: Analytics and Modeling Tools for Environmental Monitoring
Dr. Claire Zoellner, Food Safety Scientist, iFoodDS

With the transition of food safety programs from paper to digital tools, EMP data can be utilized for more than just compliance. New portals, dashboards, and modeling tools are changing the way processors execute and manage their EMPs, and more importantly communicate with internal and external stakeholders. This session will highlight the path to digital and the use of analytics and modeling in EMP decision-making.

Claire Zoellner, PhD, is a Food Safety Scientist at iFoodDS, using her expertise in microbial contamination, simulation models, and risk assessment to develop and deliver pragmatic, science-based software and decision support tools for the food industry. Prior to iFoodDS, Claire held a Postdoctoral Research appointment at Cornell University working on modeling tools to address the risk of Listeria contamination in frozen foods. She was recognized for this research with the 2020 Frozen Food Foundation Freezing Research Award and identified as an emerging leader in food science with IFT’s 2019 Emerging Leaders Network Award. Claire earned a BS in Food Science and Human Nutrition from the University of Illinois Urbana-Champaign and a PhD in Food Science and Technology with minors in Epidemiology and Systems Engineering from Cornell University.
IFSH/FRI VIRTUAL ANNUAL SYMPOSIUM
SEPTEMBER 27 - 30, 2021

Environmental Controls: Emerging Technologies and Predictive Analytics to Address Complex Sanitation Challenges

FACILITATOR BIOGRAPHIES

Breakout Session 1: Low Moisture Ingredients/Extruded Products

Dr. Jeff Kornacki, Founder, Kornacki Microbiology Solution

Dr. Elizabeth Grasso-Kelley, Chief, Food Technology Branch, FDA

Nathan Anderson, title, FDA

Dr. Kornacki is an industrial forensic food microbiologist. He has assisted and continues to assist many companies during environmental and product contamination concerns including FDA and USDA recalls, and has made well over 850 troubleshooting related plant visits across a vast assortment of food processing industries in his career. He is an active member of IAFP and several PDGs including the Low Moisture Foods PDG. He received the IAFP Sanitarian award (2010), its Wisconsin chapter’s (WAFP) Laboratorian of the Year award (2010) and is past Chairman of IAFP’s Food & Hygiene PDG from 2011 to 2013. He became an IAFP Fellow in 2017 and has published on a wide variety of food microbiology topics.

Elizabeth Grasso-Kelley, PhD, serves as the Chief of the Food Technology Branch within the US Food and Drug Administration, Division of Food Processing Science and Technology. She received her B.S. degree in Food Science from The Pennsylvania State University and her M.S. and Ph.D. degrees in Food Science and Nutrition and Food Science and Technology, respectively, from The Ohio State University. Prior to joining the FDA, she served as a Scientist at the Institute for Food Safety and Health and an Assistant Professor in Food Science and Nutrition at Illinois Tech. Elizabeth is a co-lead on the IFSH Low Moisture Foods Safety Taskforce, member of the Center for Low-Moisture Food Safety, and on the ISO Working Draft on Microbiology of the Food Chain – Requirements and guidelines for conducting challenge tests. She is a Past-Chair of the International Association for Food Protection’s Low Water Activity Foods Professional Development Group. Her research expertise involves evaluating the survival and inactivation of foodborne pathogens within low water activity commodities and processing environments, including equipment sanitation.
Dr. Lory O. Reveil is currently the Director of Scientific and Regulatory Affairs at the American Frozen Food Institute (AFFI). She holds a Ph.D. in Microbiology with a specialization in Food Microbiology and Genetics from Cornell University. Dr. Reveil received Bachelor of Science degrees in Biology and Psychology from the University of New Mexico. She is passionate about educating and training all levels of people interested in science and food safety. During her studies at Cornell, she spearheaded science literacy efforts to provide hands-on experience to underrepresented New York-area middle and high school students. Her work and service have been recognized through acceptance in the prestigious Bouchet Honor Society. At AFFI, she developed a Listeria Control Specialist course for the food industry, aimed at prevention and control of Listeria monocytogenes in food manufacturing environments.
IFSH/FRI VIRTUAL ANNUAL SYMPOSIUM
SEPTEMBER 27-30, 2021
Environmental Controls: Emerging Technologies and Predictive Analytics to Address Complex Sanitation Challenges

FACILITATOR BIOGRAPHIES

Breakout Session 3: Short Shelf-life Foods (Assembled Sandwiches)

Annette Stich, Title, Affiliation

Kara Baldus, Food Safety Program Manager, Hydrite
Kristy Herlitzka, Production Quality Assurance Manager, Kwik Trip, Inc.

Kara Baldus is a Food Safety Program Manager for Hydrite Chemical Company where she is involved in the food industry training and microbiological support.

Ms. Baldus has 25 years of food microbiology experience, working in the contract laboratory and food industries prior to joining Hydrite. Much of her career has been spent on the control of foodborne pathogens in the manufacturing plant environment and continuous improvement of food safety systems such as Hazard Analysis Critical Control Point (HACCP), environmental monitoring programs (EMP), Global Food Safety Initiative (GFSI) audit schemes and Preventive Controls. She is a member of the International Association for Food Protection and on the education committee for the Wisconsin Affiliate. She is a member of the Institute for Food Technologist and a member of the board for the Wisconsin Affiliate.
Cindy Austin has spent many years in the food industry. She earned her Bachelor’s degree in Bacteriology from University of Wisconsin-Madison and a Master’s degree in Food Science from University of Georgia-Athens. She worked at Oscar Mayer Foods for nearly 17 years in their food safety department where she worked with manufacturing plants, quality, sanitation, and product development. From there she worked at AFCO for 4 years where she provided training, auditing and troubleshooting for customers. Last year she joined UW-Madison Animal and Dairy Science Department in the new Meat Science and Animal Biologics Discovery Building’s where she works with students and manages the BSL2 laboratory.
IFSH/FRI VIRTUAL ANNUAL SYMPOSIUM
SEPTEMBER 27 - 30, 2021
Environmental Controls: Emerging Technologies and Predictive Analytics to Address Complex Sanitation Challenges

PANELIST BIOGRAPHIES

Regulatory Perspective
Dr. Leslie A. Smoot, Senior Advisor, Office of Food Safety, CFSAN, FDA

Dr. Leslie A. Smoot is an internationally recognized industry/regulatory food scientist with 40 years of experience and expertise in food safety, food microbiology, and product development support for processed foods. Most recently serving as a Senior Advisor (6 years) in OFS/CFSAN providing scientific and technical expertise to CFSAN and FDA in response to evolving policy, foodborne illness outbreaks, regulatory follow-up investigations, educational/outreach programs, risk-based research needs, and appropriate controls for hazards in processed foods to improve the safety of processed foods. In this role also leading the CFSAN Team in development of industry guidance for the Preventive Controls for Human Food rule.

Liability, Legal Perspective
Shawn Stevens, Founder, Food Industry Counsel LLC

Shawn Stevens is the founding member of Food Industry Counsel LLC, the only law firm in the United States that represents the food industry exclusively.

As a food industry consultant and lawyer, Mr. Stevens works with food industry clients (including the world’s largest growers, processors, restaurant chains, distributors and grocers) helping them protect their brand by complying with FDA and USDA regulations, reducing risk, managing recalls, and defending high-profile foodborne illness claims.

Mr. Stevens also speaks regularly to national and international audiences on a wide variety of emerging scientific, regulatory and food safety legal trends.

Additional information about his practice can be found at www.foodindustrycounsel.com
Pros/Cons/Philosophy for Aggressive Pathogen Testing/ Food Safety Culture

Dr. John Butts, Founder, FoodSafetyByDesign

In 2010 FoodSafetyByDesign, LLC was founded to help producers of high-risk products learn how to prevent and manage food safety risks. Risk identification and management by FoodSafetyByDesign incorporates root cause identification and development of preventive methodology. Dr. Butts’ specialty is the incorporation of Food Safety Practices into company culture. Preventive Controls have proven to be the most successful method to manage the risk of foreign materials and environmental pathogens. Root cause identification using the Seek and Destroy Strategy enables visualization of need. Interventions to manage high risk areas eliminate firefighting and the solving of the same problem over and over again. The company culture next moves into the preventive state and companies learn how to use data collected in their own facility to predict and prevent product contamination.

Cost, Time for Results vs. Shelf-life of Foods, Clean Breaks

Edith Wilkin, Food Microbiologist, Retired

Edith Wilkin is a retired food microbiologist. During her considerable career in dairy she developed and implemented complete laboratory, quality systems food safety processes. Her specialties are plant pathogen controls and developing enterprise level policies that strengthen food safety culture. A constant learner, she leverages her considerable experience and new developments to problem solve and teach. Industry contributions in food safety have been considerable, notably in IAFP, FSPCA, ILSI North America and the Innovation Center for US Dairy.

Responding to Disastrous Findings (e.g. 483 Salmonella)

Joe Meyer, Global Microbiology Lead, Kerry

Joe Meyer is the Global Microbiology Lead for Kerry. He provides microbiology and food safety systems support to Sanitation, Quality, R&D and Kerry manufacturing and co-manufacturing facilities worldwide. Joe has over 30 years of food industry experience. He worked for Kraft Heinz, Miniat Holdings, Covance Laboratories, Kellogg, ConAgra Foods and Kraft Foods/Oscar Mayer prior to joining Kerry. Much of his career has been spent on the control of foodborne pathogens in the manufacturing plant environment, rapid methods for identification and genetic characterization foodborne pathogens, and continuous improvement of food safety systems such as Hazard Analysis Critical Control Point (HACCP).