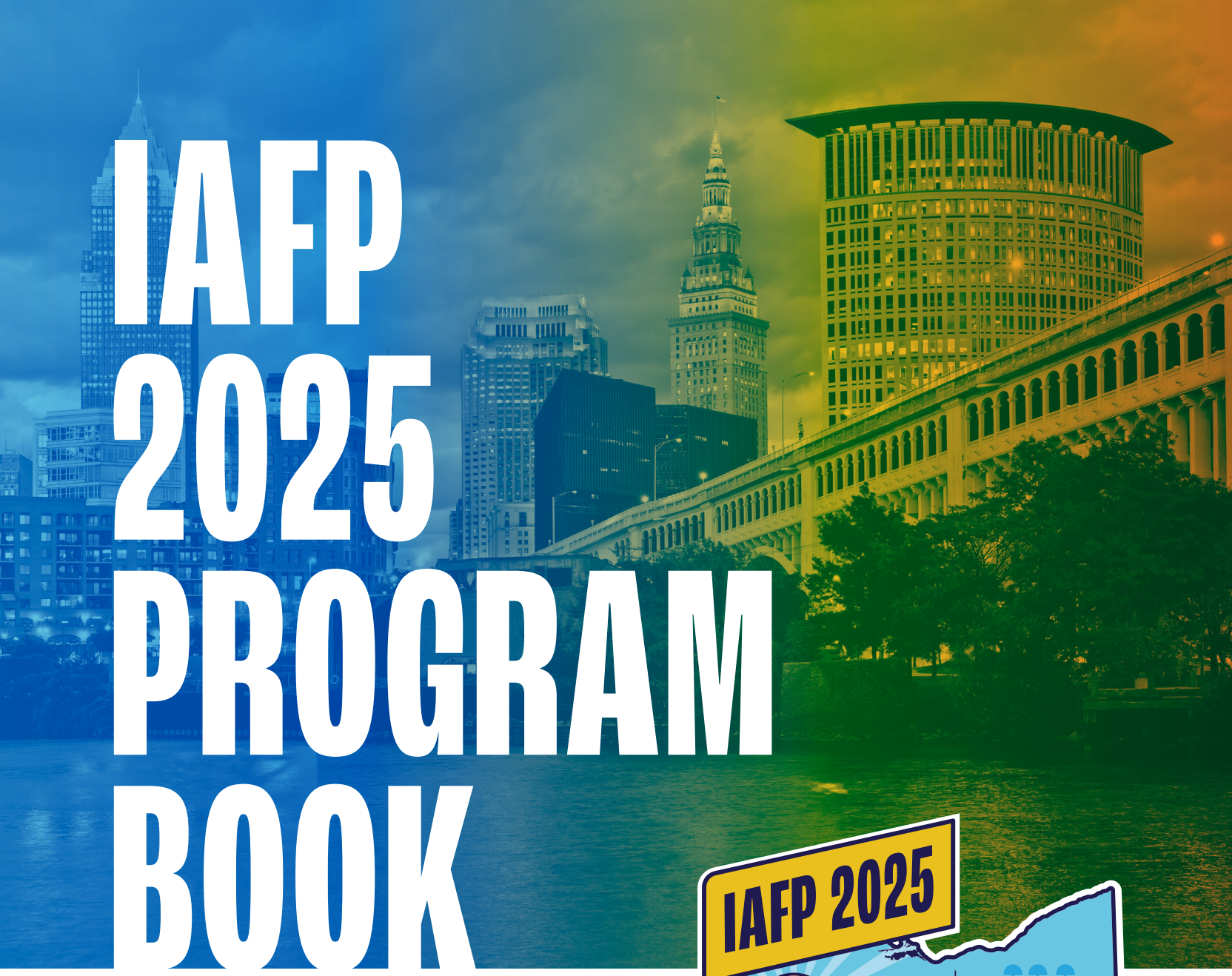
IAFP 2025 PROGRAM BOOK



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WELCOME FROM THE EXECUTIVE BOARD

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MANAN SHARMA, Ph.D.
Vice President
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PAMELA WILGER
Secretary
Post Consumer Brands,
Post Holdings

It's with genuine excitement that I welcome you all to **IAFP 2025** in Cleveland, Ohio! There's something truly energizing about bringing together thousands of passionate food safety professionals in one place – the conversations, the discoveries, and yes, even the fun we have while advancing our field.

Science is at the heart of what we do, but it's the collaborative spirit of IAFP that transforms individual knowledge into collective progress. As you explore the diverse program of symposia, roundtables, and presentations, I encourage you to approach each session, not just as a learning opportunity but as a chance to build connections that might spark your next breakthrough idea.

Don't miss the chance to engage with our student researchers and early career professionals – their fresh perspectives and innovative approaches remind us why we fell in love with food safety science in the first place! The poster sessions are particularly vibrant spaces where education and networking naturally blend.

For those looking to expand their skillset, take advantage of our specialized workshops and mentoring opportunities. Whether you're a seasoned professional or new to the field, there's always something new to learn and someone new to meet.

I want to extend our heartfelt gratitude to our exhibitors and sponsors whose support makes this conference possible. Their contributions not only enrich our exhibition hall with the latest innovations in food safety technology but also demonstrate their commitment to our shared mission of protecting the global food supply.

When you're not in sessions, explore our exhibit hall where cutting-edge technologies and solutions are on display. And don't forget to enjoy Cleveland itself – this resilient city on Lake Erie offers wonderful culinary experiences that food lovers will appreciate!

The Executive Board and I look forward to meeting you, hearing your ideas, and celebrating our collective commitment to protecting the global food supply. Together at **IAFP 2025**, we're not just sharing science – we're building the future of food safety.

See you in the session rooms, at the social events, or perhaps just chatting by the coffee station!

Mark W. Carter

IAFP President

TIM JACKSON, Ph.D.
Past President
FDA-CFSAN

CAIO CARVALHO
Affiliate Council Chairperson
Cargill

LISA K. GARCIA, CAE
Executive Director
International Association for Food Protection

LOCAL ARRANGEMENTS WELCOME

Dear Colleagues and Guests,

On behalf of the Local Arrangements Committee and the Ohio Association for Food Protection (OAFP), it is our great pleasure to welcome you to **IAFP 2025** in Cleveland. We are thrilled to host this prestigious event in our vibrant city and hope that you will enjoy the rich cultural experiences, outstanding cuisine, and warm hospitality that Cleveland has to offer.

During your visit, we encourage you to explore some of the following must-see attractions:

- **Rock and Roll Hall of Fame:** Dive into the history of rock music and explore exhibits featuring legendary artists.
- **Cleveland Museum of Art:** Discover an extensive collection of art from around the world, housed in a beautiful Beaux-Arts building.
- **West Side Market:** Experience Cleveland's oldest public market, offering a variety of fresh produce, meats, and local delicacies.
- **Cleveland Metroparks Zoo:** Enjoy a day with family and friends at one of the oldest and largest zoos in the United States.
- **Cuyahoga Valley National Park:** Take a short drive to this stunning national park, offering scenic trails, waterfalls, and outdoor activities.

Our committee has been working diligently to ensure a smooth and enjoyable experience for all attendees. We have recruited a dedicated team of volunteers to assist you throughout the event. Please take a moment to thank our volunteers, who will be wearing OAFP T-shirts, for their hard work and commitment.

This year's program is packed with informative sessions, engaging presentations, and networking opportunities that will help you stay current with the latest advancements in food safety research and industry practices. We are excited to host professionals, scientists, students, and subject-matter experts from around the world to discuss and advance the safety of the world's food supply.

We want to express our sincere gratitude to all our sponsors, exhibitors, and presenters who have contributed to making this year's program a success. We also thank the IAFP leadership and staff for their support and guidance throughout the planning process.

We hope to see you in Cleveland and wish you a productive and enjoyable experience during IAFP 2025.

Sincerely,

Yuqi Luo
OAFP President
Local Arrangements Committee
IAFP 2025

Ohio Association for Food Protection

OAFP Officers:
Karin Kasper, Past President
Amber Wenzler, 1st Vice President
Tania Nur, 2nd Vice President
Ashley Li, Treasurer
Connie Freese, Delegate

Yuqi Luo

Karin Kasper

Amber Wenzler

Tania Nur

Ashley Li

Connie Freese

GENERAL INFORMATION

CELL PHONE POLICY
As a courtesy to our presenters, we request that you turn off or silence cell phones while attending sessions.

RECORDING POLICY
Unauthorized video or audio recording will not be allowed without prior approval. By attending the IAFP Annual Meeting, you authorize IAFP to take your picture to be used in our publications.

All sessions, with speaker approval, will be audio recorded by IAFP and posted on the IAFP website for attendees' access.

LUGGAGE CHECK AREA
The Luggage Check Area is available the following hours:

Tuesday, July 29 8:00 a.m. – 6:30 p.m.
Wednesday, July 30 8:00 a.m. – 9:00 p.m.

SPEAKER-READY ROOM
The Speaker-Ready Room is located in Room 12 and is available for speakers Sunday through Wednesday.

WELCOME DESK
Talk to IAFP Members about how to navigate the meeting and get involved with IAFP.

MEETING CODE OF CONDUCT
IAFP is committed to providing a safe, productive, and welcoming environment for all meeting participants and IAFP staff. All are expected to abide by the Meeting Code of Conduct that all attendees agreed to at the time of registration.

IAFP has zero-tolerance for any form of discrimination or harassment. If you experience harassment or hear of incidents of unacceptable behavior, IAFP asks that you contact an IAFP staff member so that appropriate action is initiated.

DIVERSITY, EQUITY, AND INCLUSION
IAFP embraces diversity in the food safety community and is committed to fostering and maintaining an inclusive and equitable environment for the benefit of Members and meeting attendees.

ON-SITE ACCOMMODATIONS
- Quiet Room – located in Room 2. This space is intended to be a calming environment for those overstimulated at the conference. Use of the room is first-come, first-served.
- Lactation Room – Mamava Lactation Pods are available in the Convention Center near Meeting Room 1 and next to Meeting Room 9.
- All-Gender/Family Restrooms – located in Atrium Lobby, next to Meeting Room 8, Meeting Room 18, and Grand Ballroom level.

PROGRAM COMMITTEE
Maria Hoffmann, U.S. FDA, Committee Chairperson
Faith J. Critzer, University of Georgia, Vice Chairperson
John L. Bassett, Danone SA
Andrew J. Clarke, Loblaw Companies Limited
Vikrant Dutta, BioMerieux Inc.
Kristen E. Gibson, University of Arkansas
Lauren S. Jackson, FDA/IFSH
John J. Jarosh, USDA Food Safety Inspection Service
Bobby Krishna, Dubai Municipality
Jenny G. Maloney, ARS, USDA
Benjamin D. Miller, The Acheson Group
Anderson S. Sant'Ana, University of Campinas
Kristin M. Schill, Food Research Institute/University of Wisconsin-Madison
Don Stoeckel, Produce Safety Alliance At Cornell University
Thomas M. Taylor, Texas A&M University

For all volunteers opportunities with IAFP visit:
www.foodprotection.org/get-involved/volunteer-opportunities/

CONNECT WITH IAFP

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TO CONNECT

WIFI

Complimentary wifi is available throughout the Convention Center.

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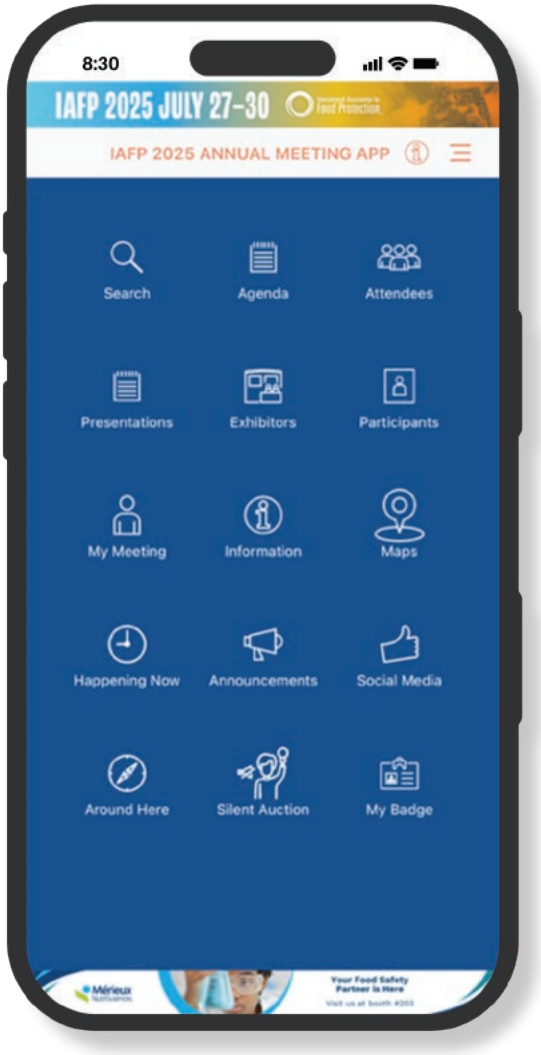
MEETING APP

Download the IAFP 2025 App for the most up-to-date information.



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SCHEDULE

FRIDAY, JULY 25

IAFP Workshops | 8:00 a.m.–5:00 p.m.

SATURDAY, JULY 26

IAFP Workshops | 8:00 a.m.–5:00 p.m.

Committee and PDG Chair & Vice Chair Meeting
3:00 p.m.–5:00 p.m.

Welcome Reception | 5:00 p.m.–6:30 p.m.

SUNDAY, JULY 27

Affiliate Council Meeting | 7:30 a.m.–9:00 a.m.

Committee and PDG Meetings | 8:00 a.m.–5:00 p.m.

Student Lunch *(ticket required)*
12:00 p.m.–1:30 p.m.

Editorial Board Reception *(by invitation)*
4:30 p.m.–5:30 p.m.

Opening Session and Ivan Parkin Lecture
6:00 p.m.–7:30 p.m.

Cheese and Wine Reception | 7:30 p.m.–9:30 p.m.

Exhibit Hours | 7:30 p.m.–9:30 p.m.

MONDAY, JULY 28

Symposia, Roundtable & Technical Sessions
8:30 a.m.–5:15 p.m.

Poster Session | 8:30 a.m.–6:15 p.m.

Exhibit Hours | 10:00 a.m.–6:15 p.m.

Exhibit Hall Lunch | 11:45 a.m.–1:30 p.m.

Exhibit Hall Reception | 5:15 p.m.–6:15 p.m.

TUESDAY, JULY 29

Committee and PDG Chairperson Breakfast *(by invitation)*
7:30 a.m.–9:00 a.m.

Symposia, Roundtable & Technical Sessions
8:30 a.m.–5:15 p.m.

Poster Session | 8:30 a.m.–6:15 p.m.

Exhibit Hours | 10:00 a.m.–6:15 p.m.

Exhibit Hall Lunch | 11:45 a.m.–1:30 p.m.

Business Meeting | 12:30 p.m.–1:15 p.m.

Exhibit Hall Reception | 5:15 p.m.–6:15 p.m.

President's Reception *(by invitation)*
6:30 p.m.–7:30 p.m.

Student Mixer | 7:00 p.m.–9:00 p.m.

Past Presidents' Dinner *(by invitation)*
7:30 p.m.–9:00 p.m.

WEDNESDAY, JULY 30

Symposia, Roundtable & Technical Sessions
8:30 a.m.–3:30 p.m.

Poster Session | 8:30 a.m.–3:30 p.m.

Networking Lunch | 11:45 a.m.–1:30 p.m.

Closing Session and John H. Silliker Lecture
4:00 p.m.–4:45 p.m.

Awards Reception and Banquet | 6:00 p.m.–9:30 p.m.

COMMITTEE AND PDG MEETINGS

TIMES	MEETING	ROOM
SATURDAY, JULY 26		
3:00 p.m. – 5:00 p.m.	Committee/PDG Chairs & Vice Chairs Meeting	ROOM 1
SUNDAY, JULY 27		
7:30 a.m. – 9:00 a.m.	Affiliate Council	BALLROOM C
8:00 a.m. – 10:00 a.m.	Committee on Control of Foodborne Illness	ROOM 15
8:30 a.m. – 10:00 a.m.	Dairy Quality and Safety	ROOM 5
	Food Fraud	ROOM 6
	Food Safety Education	ROOM 1
	Viral and Parasitic Foodborne Disease	ROOM 3
	Food Safety Assessment, Audit and Inspection	ROOM 4
	Modeling and Risk Analysis	ROOM 25 ABC
	Pre-Harvest Food Safety	ROOM 26 BC
	Sanitary Equipment and Facility Design	ROOM 26A
10:30 a.m. – 12:00 p.m.	Applied Laboratory Methods	ROOM 25 ABC
	Constitution and Bylaws	ROOM 11
	Developing Food Safety Professionals	ROOM 3
	Diversity, Equity and Inclusion	ROOM 26A
	Food Hygiene and Sanitation	ROOM 26 BC
	Plant-Based Alternative Products	ROOM 6
	Retail and Foodservice	ROOM 5
	Webinar Committee	ROOM 15
	Water Safety and Quality	ROOM 4
11:00 a.m. – 12:00 p.m.	Student PDG	ROOM 1
1:00 p.m. – 2:00 p.m.	Past President's Committee	ROOM 11
1:00 p.m. – 2:30 p.m.	Advanced Molecular Analytics	ROOM 25 ABC
	Animal and Pet Food Safety	ROOM 1
	Beverages and Acid/Acidified Foods	ROOM 3
	Food Packaging	ROOM 6
	FPT Management	ROOM 7
	HACCP Utilization and Food Safety Systems	ROOM 26 BC
	Food Safety Culture	ROOM 4
	Food Law	ROOM 5
	Seafood Safety and Quality	ROOM 26A
3:00 p.m. – 4:30 p.m.	Data Management and Analytics	ROOM 6
	Food Chemical Hazards and Food Allergy	ROOM 4
	Food Defense	ROOM 3
	Fruit and Vegetable Safety and Quality	ROOM 25 ABC
	International Food Protection Issues	ROOM 5
	JFP Management	ROOM 7
	Low Water Activity Foods	ROOM 1
	Meat and Poultry Safety and Quality	ROOM 26 BC
	Physical Hazards and Foreign Materials	ROOM 26A
	Membership	ROOM 11
	Nominating Committee	ROOM 15

SCHEDULE-AT-A-GLANCE

	Grand Ballroom AB	Grand Ballroom C	Atrium A	Atrium C	Room 25ABC	Room 26A	Room 26BC
SUNDAY, JULY 27							
Sunday 6:00 p.m. – 7:30 p.m.	**Opening Session – Ivan Parkin Lecture** – Grand Ballroom AB *Less is More: Ditching Distractions and Focusing on Value* – Alejandro Mazzotta, Chobani, New York, New York						
MONDAY, JULY 28							
Monday 8:30 a.m. – 12:15 p.m.	S1 – Myth Busting – Safety of Food Additives and Ingredients	S2 – Future Directions of *Salmonella* Control for Poultry Products – What's Next?	RT1 – Challenges and Opportunities Around the New FSMA Pre-Harvest Agricultural Water Rule: Safety, Sustainability, and the Need for Integrated Water Resource Management		RT2 – *Listeria* Quantification in Dairy and RTE: Challenges, Innovations, Perspectives	S3 – Fur Real and Not Just a Bone to Pick: Pathogen Control in Manufacturing Raw Pet Food Diets	S4 – Future-Proofing Retail Success: The Power of Food Safety Culture in a Rapidly Evolving Industry
	S6 – Preventive Controls, HACCP and Beyond: Effectiveness of Current Risk Reduction Strategies in the Global Food Supply Chain	S7 – Risk Assessments for Precautionary Labeling Allergen Thresholds	RT4 – Crossing the Finish Line: Industry's Race to FSMA 204 Compliance	S8 – Avian Influenza and Virus Confirmations – Be Careful What You Wish For	RT5 – *Listeria* Control in Ready-to-Eat Foods: Addressing the Continued Challenge	S9 – Implications of Extreme Weather on Food Safety from Farm-to-Fork and Beyond	S10 – A Decade of Food Safety Culture: Advancing Food Safety through Organizational Culture and Human Behaviors
Monday 12:30 p.m. – 1:30 p.m.	**U.S. Regulatory Update on Food Safety** – Grand Ballroom AB Kyle Diamantas, J.D., Food and Drug Administration, Silver Spring, Maryland; and Dr. Denise Eblen, U.S. Department of Agriculture's Food Safety and Inspection Service, Washington, D.C.						
Monday 1:30 p.m. – 5:15 p.m.	S12 – Risky Business: Understanding and Communicating the Costs and Benefits of Risk Mitigation Programs for Food Safety	S13 – Outbreaks Linked to Cantaloupe: Improving Food Safety and Protecting Public Health	RT7 – Decoding Food Allergen Methods: Why, When, and How to Implement Analysis		RT8 – Career GPS: Guiding Your Professional Journey	S14 – Innovative Product Design for Quality and Food Safety – Creative Approaches to Novel Plant-Based Products Development	S15 – Cutting through the Hype: Real-World Benefits of AI in Food Safety
		S17 – The Tortuous Tangle of Water Regulations for Fresh Produce: Stategies to Navigate	RT9 – 20 Years of Consumer Insights: What IFIC's Food & Health Survey Tells Us about Consumers and Food Safety	S18 – Innovations in the Dairy Cleaning and Sanitation: Safety, Efficiency and Sustainability Impacts	RT10 – Comparing Different Approaches to Identify *Salmonella* Serotypes of Concern in Meat and Poultry	S19 – Risk Business in Low- and Middle-Income Countries	S20 – AI for Predictive Microbial Risk Assessment in Food Processing
TUESDAY, JULY 29							
Tuesday 8:30 a.m. – 12:15 p.m.	S22 – Outbreak Symposium	S23 – From Data to Decisions: Genomics/Metagenomics in FSQA Programs	S24 – Retail, Regulatory, and Food Rescue and Recovery Considerations to Address Global Food Waste	S25 – Managing Chemical Hazards in Water Reused in Food Production and Processing		S26 – Harmonization for Commercial Sterility Testing	RT12 – Efforts to Reduce Food Safety Risks In the Production of Wheat Flour
		S28 – Warming the Frozen Food Supply Chain: Food Safety and Spoilage Implications	S29 – Shaping Tomorrow's Table: The Future of Food Safety and Regulation in a Constantly Changing World	S30 – Navigating the Path: Dietary Supplements in the Food Safety Regulatory Landscape	RT14 – Sustaining Food Safety Improvement Initiatives in Low- and Middle-Income Countries (LMICs): Insights from Research and Practical Engagements	S31 – The Role of Moonlighting Proteins in the Adaptability and Success of Bacterial Pathogens In Vivo and In Vitro	RT15 – Strategies for Managing Foreign Material Incidents in Food Production
Tuesday 12:30 p.m. – 1:15 p.m.	**IAFP Business Meeting** – Room 4						
Tuesday 1:30 p.m. – 5:15 p.m.	S33 – Advancements in HPAI Research: Updates on Transmission, Dairy Safety, and Risk Assessment	S34 – Surfaces, The Microbiome, and Foodborne Pathogens – How the Background Microbiome Influences Pathogen Detection	S35 – Genomic Testing and Its Role in Food Safety Assurance	S36 – Navigating Food Safety and Regulatory Considerations for New and Novel Ingredient Approval Pathways for Innovations in Human and Animal Foods	RT17 – Lingering Hazards: Conquering the Persistent Threats of *Listeria* and *Salmonella* in Deli Meats	S37 – Food Safety in Farmers' Markets and Informal Outdoor Food Markets around the World	RT18 – AI in Action: Transforming Food Safety with Smart Detection, Automation, and Ethical Solutions
	S39 – To Rotate or Not? How Can Microbiome Analysis and Biofilm Tools Broadly Improve Sanitation and Answer This Age-Old Question?	S40 – The Evolving Landscape of Food Ingredient Safety in the United States		S41 – International Efforts in Food Virology: The 2023–2024 FAO/WHO JEMRA Expert Consultations for the Codex Committee on Food Hygiene	RT20 – Edibles and Drinkables Food Safety Explorations at the Intersection of Food and Cannabis	S42 – Validation and State-of-the-Art Methods for Foodborne Parasites	RT21 – Combatting Food Fraud: Leveraging Innovation, Traceability, and AI for a Safer Global Food Supply
WEDNESDAY, JULY 30							
Wednesday 8:30 a.m. – 12:15 p.m.		RT23 – A Good Fit. Leveraging EMP into Retail and Food Service Operations	S44 – Promises and Challenges of Implementing Natural Antimicrobials from Farm to Fork	S45 – Tracking Sampling and Testing Strategies during Live Production and Pre-Harvest for *Salmonella* Reduction	S46 – Beyond Slime: Why Dry Surface Biofilms Need a New Approach to Food Hygiene		
			S50 – Advancing Food Safety Education Through Employee Engagement Initiatives		S51 – Best Practices for Food Safety Communication: Recommendations and Realities	S52 – Molecular Methods for the Detection of Spoilage Microorganisms	RT24 – Microbiome and Metagenomic Data are Cheap and Detailed: What Now?
Wednesday 1:30 p.m. – 3:30 p.m.		S56 – WITHDRAWN	S57 – Standing Out in a Crowd: Why Some *Salmonella* Strains Break through to Cause Illness	S58 – Define "Lot"? Understanding New Regulatory Standards for *Salmonella* Contamination in Poultry Parts and Strategies for Ensuring Final Product Safety	S59 – Food Allergies in the American Household – A Roundtable Discussion with Expert Perspectives from the Food Allergy Advocacy, Government, and Medical Communities	S60 – Novel Foods, Safety, Shelf Life, and Rapid Methods – Approaches to Test Method Design, Validation and Application in Alternative Protein-Based Products	S61 – Can Exceptional Lethality during Thermal Processing Act as a Preventive Control?
Wednesday 4:00 p.m. – 4:45 p.m.	**John H. Silliker Lecture** – Grand Ballroom AB *Of Poultry, Pathogens, and People: Perennial Passions* – Julian Cox, Faculty of Engineering, UNSW Sydney, New South Wales, Australia						

SCHEDULE-AT-A-GLANCE

	Room 1	Room 3	Room 4	Room 5	Room 6	Room 7	Exhibit Hall
SUNDAY, JULY 27							
Sunday 6:00 p.m. – 7:30 p.m.	**Opening Session – Ivan Parkin Lecture** – Grand Ballroom AB *Less is More: Ditching Distractions and Focusing on Value* – Alejandro Mazzotta, Chobani, New York, New York						
MONDAY, JULY 28							
Monday 8:30 a.m. – 12:15 p.m.	S5 – Food Traceability Rule Updates, Industry Compliance Preparation and Industry Training Curriculum	RT3 – Defining a Food Safety Data Standard	Technical Session 1 – Food Allergens, Packaging, and Epidemiology	Technical Session 2 – Seafood and Low-Water Activity Foods			Poster Session 1 – Antimicrobials, Dairy, Data Management and Analytics, Food Allergens, Food Chemical Hazards, Low-Water Activity Foods, Microbial Food Spoilage, Packaging, Physical Hazards and Foreign Materials, Produce, and Water
	S11 – When is a "Negative" Truly "Negative?"	RT6 – Practical Assessment of Risk: What Modeling Tools and Techniques to Use?	Technical Session 3 – Epidemiology	Technical Session 4 – Meat, Poultry and Eggs, and Dairy	Marketplace to Connect IAFP Professionals Worldwide on Food Safety in Asia		
Monday 12:30 p.m. – 1:30 p.m.	**U.S. Regulatory Update on Food Safety –** Grand Ballroom AB Kyle Diamantas, J.D., Food and Drug Administration, Silver Spring, Maryland; and Dr. Denise Eblen, U.S. Department of Agriculture's Food Safety and Inspection Service, Washington, D.C.						
Monday 1:30 p.m. – 5:15 p.m.	S16 – Daily Lunch Meat Safety: *Listeria* Outbreaks and Recalls Linked to Luncheon Meat		Technical Session 5 – Sanitation and Hygiene	Technical Session 6 – Developing Scientist Finalists			
	S21 – Uncharted Territory: The Importance of Genomic Surveys of Foodborne Pathogens from "Uncommon" Environments	RT11 – Addressing the Emerging Threat of Psychoactive Compounds in Food	Technical Session 7 – Antimicrobials	Technical Session 8 – Developing Scientist Finalists			
TUESDAY, JULY 29							
Tuesday 8:30 a.m. – 12:15 p.m.	RT13 – Empowering Education: Creating Inclusive and Engaging Training Programs	S27 – End to End (E2E) Physical Hazards Risk Management in Pet Foods for Safety and Health of Companion Animals	Technical Session 9 – Pre-Harvest Food Safety	Technical Session 10 – Communication, Outreach and Education	Marketplace		Poster Session 2 – Animal and Pet Food Safety, Communication, Outreach and Education, Food Defense, Food Fraud, Food Law and Regulation, Food Processing Technologies, Laboratory and Detection Methods, Pre-Harvest Food Safety, Retail and Food Service Safety, Sanitation and Hygiene, Seafood, and Viruses and Parasites
	RT16 – Decoding Regulatory and Public Health Uses of WGS: What Food Producers Should Know	S32 – Battling Mold in Low-Moisture Foods	Technical Session 11 – Pre-Harvest Food Safety, Data Management and Analytics, and Beverages and Acid/Acidified Foods	Technical Session 12 – Communication, Outreach and Education			
Tuesday 12:30 p.m. – 1:15 p.m.	**IAFP Business Meeting** – Room 4						
Tuesday 1:30 p.m. – 5:15 p.m.	RT19 – Trusted Data Sharing: Collective Learning for Food Safety Insights	S38 – Mycotoxin Mitigation and Control Measures in Treenut Production and Processing		Technical Session 13 – Laboratory and Detection Methods and Molecular Analytics, Genomics and Microbiome			
	RT22 – What Do You Need from Your Validated Microbiological Methods?	S43 – The Invisible Threat of Mycotoxins in the Fermentation Industry: A Food Safety Challenge of the 21st Century	Technical Session 14 – Retail and Food Service Safety and Food Safety Management Systems	Technical Session 15 – Laboratory and Detection Methods			
WEDNESDAY, JULY 30							
Wednesday 8:30 a.m. – 12:15 p.m.	S47 – Allergen Management in Hospitality Venues	S48 – What's the Hold Up? Microbiological Risks Associated with Holding of Product Prior to Further Processing	S49 – Fragile Yet Devious; What Makes *Campylobacter* so Persistent?	Technical Session 16 – Produce and Water	Technical Session 17 – General Microbiology		Poster Session 3 – Beverages and Acid/Acidified Foods, Epidemiology, Food Safety Systems, Food Toxicology, General Microbiology, Meat, Poultry and Eggs, Modeling and Risk Assessment, Molecular Analytics, Genomics and Microbiome, and Plant-Based Alternative Products
	S53 – Smoking for Food Safety – Clean Labeling and Integrated Strategies	S54 – Scientific Progress Toward Intelligent Design of Anti-Noroviral Disinfection Products and Processes	S55 – Spores...Let's "B. cereus"	Technical Session 18 – Food Safety Systems	Technical Session 19 – Food Law and Regulation and General Microbiology		
Wednesday 1:30 p.m. – 3:30 p.m.	S62 – Integrating Multidisciplinary Produce Safety Research to Inform Regulation	S63 – LFFM: Five Years of Success in Strengthening Food Safety	S64 – The Frontlines of Food Safety Education: Challenges and Opportunities	Technical Session 20 – Food Processing Technologies	Technical Session 21 – Modeling and Risk Assessment		
Wednesday 4:00 p.m. – 4:45 p.m.	**John H. Silliker Lecture –** Grand Ballroom AB *Of Poultry, Pathogens, and People: Perennial Passions* – Julian Cox, Faculty of Engineering, UNSW Sydney, New South Wales, Australia						

GENERAL SESSIONS

OPENING SESSION

Sunday, July 27 • 6–7:30 p.m.

IVAN PARKIN LECTURE

ALEJANDRO MAZZOTTA

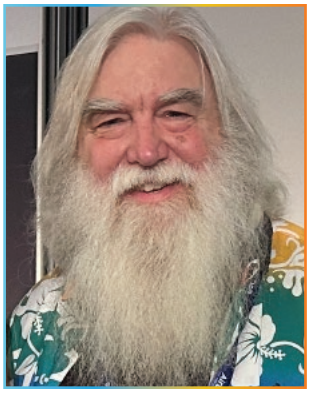
SENIOR VICE PRESIDENT OF QUALITY, FOOD SAFETY & REGULATORY

Chobani | New York, New York

"Less is More: Ditching Distractions and Focusing on Value"

CLOSING SESSION

Wednesday, July 30 • 4–4:45 p.m.



JOHN H. SILLIKER LECTURE

JULIAN COX

ASSOCIATE PROFESSOR – FOOD MICROBIOLOGY, AND ASSOCIATE DEAN – INTERNATIONAL

Faculty of Engineering | UNSW Sydney, NSW, Australia

"Of Poultry, Pathogens and People: Perennial Passions"

U.S. REGULATORY UPDATE SESSION

Monday, July 15 • 12:30 p.m.–1:30 p.m.

MR. KYLE DIAMANTAS J.D.

ACTING DEPUTY COMMISSIONER FOR HUMAN FOODS

Food and Drug Administration

DR. DENISE EBLEN

ADMINISTRATOR

U.S. Department of Agriculture's Food Safety and Inspection Service

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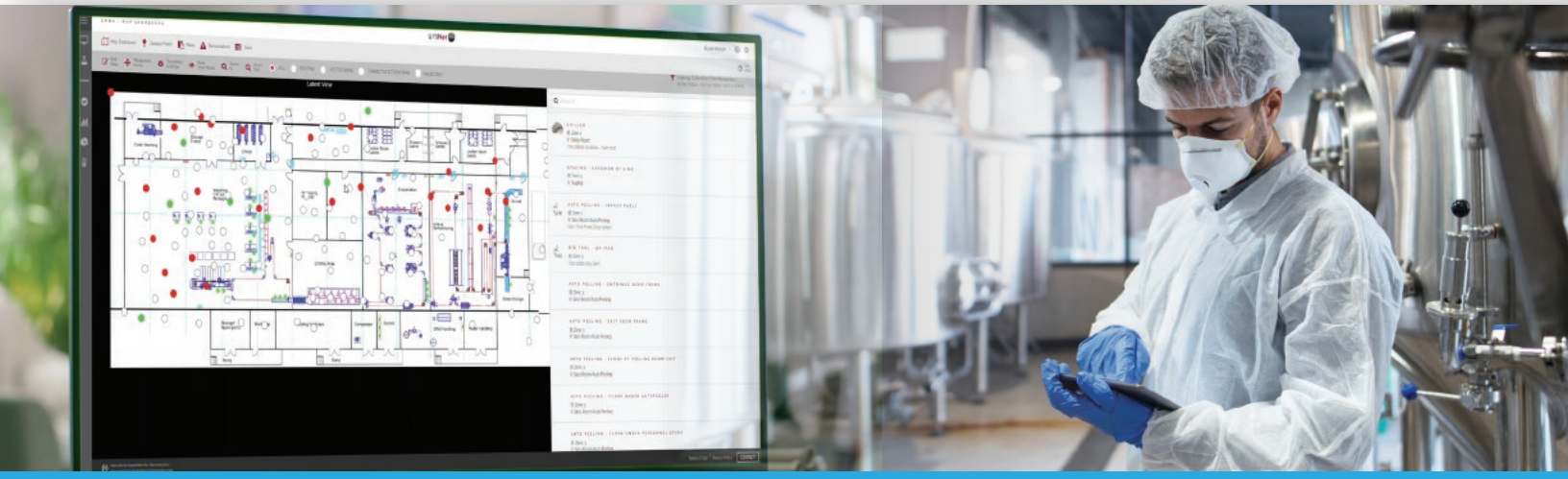

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STUDENT ACTIVITIES

STUDENT PDG MEETING

SUNDAY, JULY 27

11:00 a.m.–12:00 p.m.

Room 1

JOB FAIR

ATTENTION JOB SEEKERS AND EMPLOYERS!

Job announcements will be posted at the Student PDG booth.

STUDENT LUNCH

SUNDAY, JULY 27

12:00 p.m.–1:30 p.m.

Grand Ballroom C

STUDENT MIXER

TUESDAY, JULY 29

7:00 p.m.–9:00 p.m.

Rooftop Terrace

Purchase a T-shirt to support the students! **$25**

Visit the IAFP Student PDG Booth in the Exhibit Hall.

EXHIBIT HALL EVENTS

EXHIBIT HALL HOURS

SUNDAY, JULY 27	MONDAY, JULY 28	TUESDAY, JULY 29
7:30 p.m. – 9:30 p.m.	10:00 a.m. – 6:15 p.m.	10:00 a.m. – 6:15 p.m.

EXHIBIT HALL EVENTS

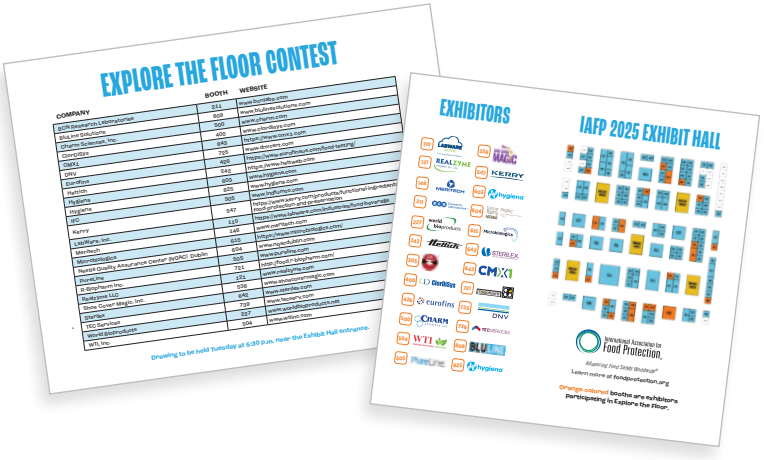
SUNDAY, JULY 27	MONDAY, JULY 28	TUESDAY, JULY 29
Opening Session 7:30 p.m. – 9:30 p.m. Sponsored by LABPLAS Cheese provided by LAND O'LAKES INC. ROOTED IN TOMORROW	**Coffee Break** 10:00 a.m. – 10:45 a.m. Sponsored by DEIBEL LABORATORIES	**Coffee Break** 10:00 a.m. – 10:45 a.m. Sponsored by ALDEN
	Lunch 11:45 a.m. – 1:30 p.m. Sponsored by BCN Research Laboratories INC	**Lunch** 11:45 a.m. – 1:30 p.m. Sponsored by Cargill
	Coffee Break 3:00 p.m. – 3:45 p.m.	**Coffee Break** 3:00 p.m. – 3:45 p.m.
	Exhibit Hall Reception 5:15 p.m. – 6:15 p.m.	**Exhibit Hall Reception** 5:15 p.m. – 6:15 p.m.

EXPLORE THE FLOOR

Pick up your Explore the Floor form at the Registration Desk!

As you explore the floor, have participating exhibitors stamp your passport. Once you have 15 or more stamps, complete the form and drop it into the box located near the Exhibit Hall entrance.

Drawing to be held **Tuesday at 5:30 p.m.** near the Exhibit Hall entrance.



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The money raised helps to fund the programs of the IAFP Foundation including:

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Travel Support for Speakers at Global IAFP Conferences

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Silent Auction Hours

Sunday, July 27	Monday, July 28	Tuesday, July 29
7:30 p.m. – 8:30 p.m.	10:00 a.m. – 6:00 p.m.	10:00 a.m. – 3:30 p.m.

Final bids must be made by 3:30 p.m. on Tuesday. Bid sheets will be pulled promptly at 3:30 p.m. Successful bidders can claim items immediately following.

CALL FOR AWARDS DEADLINES

IAFP 2026 NEW ORLEANS LOUISIANA JULY 26–29

JANUARY 20, 2026
Student Travel Scholarship

FEBRUARY 10, 2026
Award Nominations

Watch the IAFP website for **award application** and **nomination information.**

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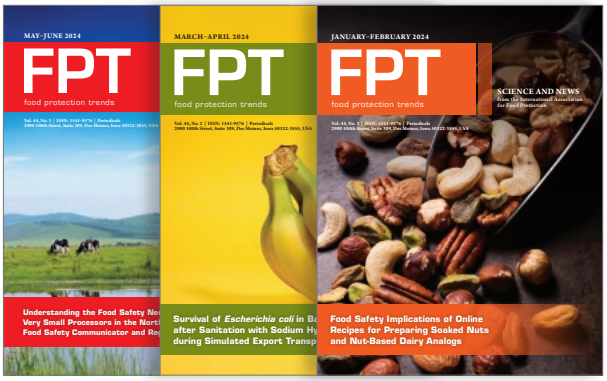
FPT PUBLICATION AWARDS



Congratulations to the Recipients of the 2025 *Food Protection Trends* Publication Awards

Most Cited Research Publication Award

Occupational Health and Food Safety Risks in Ilorin, Northcentral Nigeria: A Cross-Sectional Survey of Slaughterhouse Workers

Ismail A. Odetokun, Ibraheem Ghali-Mohammed, Nma B. Alhaji, Aliyu A. Nuhu, Habeeb A. Oyedele, Saliu A. Ameen, and Victoria O. Adetunji

Published in July 2020

The award is based upon the number of citations of a work by others for research articles published five years prior to the year of the IAFP Annual Meeting.

Most Viewed Peer-Reviewed Research Publication Award

Understanding the Food Safety Needs of Small and Very Small Processors in the Northeast United States: Food Safety Communicator and Regulator Perspectives

Annie S. Fitzgerald, Andrea Gilbert-Eckman, Elizabeth M. Demmings, Jill Fitzsimmons, Amanda J. Kinchla, Nicole Richard, Dave Seddon, Luke F. LaBorde, and Elizabeth Newbold

Published in May 2024

The award is based upon the number of times a publication that was published over the last two calendar years was viewed.

Most Viewed General Interest Publication Award

Working with People Affected by Cancer in Food Safety Research: Recruitment Considerations from a Transatlantic Collaboration

Ellen W. Evans and Sanja Ilic

Published in March 2024

The award is based upon the number of times a publication that was published over the last two calendar years was viewed.

2025 *Food Protection Trends* Exceptional Reviewer Award

LUKE LaBORDE

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JFP PUBLICATION AWARDS

Congratulations to the Recipients of the 2025 *Journal of Food Protection* Publication Awards

John N. Sofos Most Cited Research Publication Award

1ST PLACE

Food Attribution and Economic Cost Estimates for Meat- and Poultry-Related Illnesses

R.L. Scharff

June 2020

2ND PLACE

Foodborne* Klebsiella pneumoniae: *Virulence Potential, Antibiotic Resistance, and Risks to Food Safety

Man Ling Chau, SHP Hartantyo, ML. Chau, TH. Koh, M. Yap, T. Yi, DYH. Cao, RA. Gutiérrez, and LC. Ng

July 2020

3RD PLACE

Phage Biocontrol Improves Food Safety by Significantly Reducing the Level and Prevalence of* Escherichia coli *O157:H7 in Various Foods

Amit Vikram, JI. Tokman, J. Woolston, and A. Sulakvelidze

April 2020

The awards are based upon the number of citations of a work by others for papers published five years prior.

John N. Sofos Most Cited Review Publication Award

Plant Phytochemicals in Food Preservation: Antifungal Bioactivity: A Review

Felipe Lombó, S. Redondo-Blanco, J. Fernández, S. López-Ibáñez, E. M. Miguélez, and C. J. Villar

January 2020

2025 *Journal of Food Protection* Most Downloaded Publication Award

Database of Food Fraud Records: Summary of Data from 1980 to 2022

K. Everstine, H. Chin, F. Lopes, and J. Moore

March 2024

This award recognizes the JFP *publication that was most-downloaded in 2024 and published within the last 10 years.*

2025 *Journal of Food Protection* Exceptional Reviewer Award

DR. DONALD (DON) SCHAFFNER

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BEST OVERALL AFFILIATE MEETING AWARD

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Turkish Food Safety Association

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IVAN PARKIN LECTURE

Opening Session • Sunday, July 27 • 6–7:30 p.m.

ALEJANDRO MAZZOTTA

SENIOR VICE PRESIDENT OF QUALITY, FOOD SAFETY & REGULATORY AFFAIRS

CHOBANI | NEW YORK, NEW YORK

Dr. Alejandro Mazzotta is Senior Vice President of Global Quality, Food Safety and Regulatory Affairs for Chobani, LLC in New York, New York. Before joining Chobani, Dr. Mazzotta held positions in Food Safety, Quality, and Microbiology at Campbell Soup Company, McDonald's Corporation, Pillsbury/General Mills, and The National Food Processors Association.

Prior to his career in the food industry, Dr. Mazzotta was appointed as Scientific Investigator by the Argentine Antarctic Scientific Institute where he served for four years, two of which were based in the Antarctic Peninsula conducting research on the ecology of Antarctic fish under a national fisheries program.

Dr. Mazzotta joined IAFP in 1999. In 2013, he was elected to serve on the IAFP Executive Board for a five-year term of successive positions, assuming the presidency in 2016. He served on the *Journal of Food Protection (JFP)* Management Committee from 2000–2002 and the JFP Editorial Board from 2001–2003. He is a member of several IAFP Professional Development Groups (PDGs) and served on IAFP's Program Committee from 2006–2011. In addition, he has served on numerous IAFP Award Selection Committees.

From 2004–2009, Dr. Mazzotta was appointed to the National Advisory Committee on Microbiological Criteria for Foods (NACMCF). He served on the Editorial Board of Applied and Environmental Microbiology from the American Society for Microbiology. He currently serves on both the Center for Food Safety at the University of Georgia (CFS) and the bioMérieux Industry Advisory Boards. Dr. Mazzotta is a Professional Member of the Institute of Food Technologists. He has published more than 25 publications in peer-reviewed scientific journals in both English and Spanish and has spoken at numerous international meetings and symposia.

Dr. Mazzotta participates in the Cornell Food Science Advisory Council and was appointed as Adjunct Professor at Cornell University's Department of Food Science. A native of Argentina, he earned his B.S. and M.S. in Biological Sciences from the University of Buenos Aires and his Ph.D. in Food Science from Rutgers University.

ABSTRACT:

Less is More: Ditching Distractions and Focusing on Value

In the fast-evolving world of food production, maintaining the highest standards of food safety is not just a necessity but a responsibility that directly impacts public health and consumer trust. Established in May 2000, the Global Food Safety Initiative (GFSI) aimed to harmonize food safety standards globally. Similarly, the signing of the Food Safety Modernization Act (FSMA) into law in January 2011 represented a significant shift towards prevention-focused regulatory frameworks in the United States. Yet, more than a decade later, the effectiveness of these measures warrants critical examination.

Despite an increase in the number of audits and addendums conducted at food processing plants, the rate of foodborne outbreaks and recalls has not seen a proportional decline. This paradox raises crucial questions: Has the FSMA truly modernized food safety regulatory requirements, or has it primarily added layers of complexity to an already burdensome system? Likewise, have GFSI schemes alleviated the audit burden, or have they merely expanded the paperwork requirements at the operational level?

Drawing from years of hands-on experience in the food production industry, this presentation delves into these pressing issues. It reflects on the critical need to streamline processes and eliminate non-value-adding activities, particularly in the realms of external audits and regulatory compliance. By shifting focus away from exhaustive audit procedures that contribute little to actual food safety outcomes and redirecting resources towards proactive hazard control, organizations can enhance their food safety management systems significantly.

Data underscores the need for such a transformative approach. In 2022 alone, the Centers for Disease Control and Prevention (CDC) reported approximately 48 million cases of foodborne illnesses in the United States, leading to 128,000 hospitalizations and 3,000 deaths. Furthermore, the economic cost of foodborne illnesses is estimated to exceed $15 billion annually. These figures highlight the urgent need for a paradigm shift in how the industry addresses food safety challenges.

This presentation will explore practical strategies and best practices for optimizing food safety efforts. Join us to uncover actionable insights that bridge the gap between regulatory requirements and operational excellence in food safety management.

IVAN PARKIN

Dr. Ivan Parkin was a Dairy Extension Specialist at Pennsylvania State University. Dr. Parkin served as the IAFP President in 1955 and received the IAFP Honorary Life Membership Award in 1965.

MONDAY, JULY 28

ALL DAY

8:30 a.m. – 6:15 p.m.

Exhibit Hall		Poster Session 1 – Antimicrobials, Dairy, Data Management and Analytics, Food Allergens, Food Chemical Hazards, Low-Water Activity Foods, Microbial Food Spoilage, Packaging, Physical Hazards and Foreign Materials, Produce, and Water *P1-01 through P1-111 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.* *P1-112 through P1-216 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.*

MORNING

8:30 a.m. – 10:00 a.m.

Grand Ballroom AB	S1	Myth Busting – Safety of Food Additives and Ingredients
Grand Ballroom C	S2	Future Directions of *Salmonella* Control for Poultry Products – What's Next? *Sponsored by Thermo Fisher Scientific*
Room 26A	S3	Fur Real and Not Just a Bone to Pick: Pathogen Control in Manufacturing Raw Pet Food Diets
Room 26BC	S4	Future-Proofing Retail Success: The Power of Food Safety Culture in a Rapidly Evolving Industry
Room 1	S5	Food Traceability Rule Updates, Industry Compliance Preparation and Industry Training Curriculum
Atrium A	RT1	Challenges and Opportunities around the New FSMA Pre-Harvest Agricultural Water Rule: Safety, Sustainability, and the Need for Integrated Water Resource Management
Room 25ABC	RT2	*Listeria* Quantification in Dairy and RTE: Challenges, Innovations, Perspectives
Room 3	RT3	Defining a Food Safety Data Standard
Room 4	T1	Technical Session 1 – Food Allergens, Packaging, and Epidemiology
Room 5	T2	Technical Session 2 – Seafood and Low-Water Activity Foods

10:00 a.m. – 10:45 a.m. Break – Refreshments available in the Exhibit Hall *Sponsored by* DEIBEL LABORATORIES

10:45 a.m. – 12:15 p.m.

Grand Ballroom AB	S6	Preventive Controls, HACCP and Beyond: Effectiveness of Current Risk Reduction Strategies in the Global Food Supply Chain *Sponsored by Vistab International AB*
Grand Ballroom C	S7	Risk Assessments for Precautionary Labeling Allergen Thresholds
Atrium C	S8	Avian Influenza and Virus Confirmations – Be Careful What You Wish For
Room 26A	S9	Implications of Extreme Weather on Food Safety from Farm-to-Fork and Beyond
Room 26BC	S10	A Decade of Food Safety Culture: Advancing Food Safety through Organizational Culture and Human Behaviors
Room 1	S11	When is a "Negative" Truly "Negative?"
Atrium A	RT4	Crossing the Finish Line: Industry's Race to FSMA 204 Compliance
Room 25ABC	RT5	*Listeria* Control in Ready-to-Eat Foods: Addressing the Continued Challenge
Room 3	RT6	Practical Assessment of Risk: What Modeling Tools and Techniques to Use?
Room 4	T3	Technical Session 3 – Epidemiology
Room 5	T4	Technical Session 4 – Meat, Poultry and Eggs, and Dairy
Room 6 & 7	AMP	Marketplace to Connect IAFP Professionals Worldwide on Food Safety in Asia

11:45 a.m. – 1:30 p.m. Lunch available in the Exhibit Hall *Sponsored by* BCN Research Laboratories

AFTERNOON

12:30 p.m. – 1:30 p.m.

Grand Ballroom AB		U.S. Regulatory Update on Food Safety

1:30 p.m. – 5:15 p.m.

Grand Ballroom AB	S12	Risky Business: Understanding and Communicating the Costs and Benefits of Risk Mitigation Programs for Food Safety

1:30 p.m. – 3:00 p.m.

Grand Ballroom C	S13	Outbreaks Linked to Cantaloupe: Improving Food Safety and Protecting Public Health
Room 26A	S14	Innovative Product Design for Quality and Food Safety – Creative Approaches to Novel Plant-Based Products Development
Room 26BC	S15	Cutting through the Hype: Real-World Benefits of AI in Food Safety
Room 1	S16	Daily Lunch Meat Safety: *Listeria* Outbreaks and Recalls Linked to Luncheon Meat
Atrium A	RT7	Decoding Food Allergen Methods: Why, When, and How to Implement Analysis
Room 25ABC	RT8	Career GPS: Guiding Your Professional Journey
Room 4	T5	Technical Session 5 – Sanitation and Hygiene
Room 5	T6	Technical Session 6 – Developing Scientist Technical Finalists

3:00 p.m. – 3:45 p.m. Break – Refreshments available in the Exhibit Hall

3:45 p.m. – 5:15 p.m.

Grand Ballroom C	S17	The Tortuous Tangle of Water Regulations for Fresh Produce: Strategies to Navigate
Atrium C	S18	Innovations in the Dairy Cleaning and Sanitation: Safety, Efficiency and Sustainability Impacts
Room 26A	S19	Risk Business in Low- and Middle-Income Countries
Room 26BC	S20	AI for Predictive Microbial Risk Assessment in Food Processing
Room 1	S21	Uncharted Territory: The Importance of Genomic Surveys of Foodborne Pathogens from "Uncommon" Environments
Atrium A	RT9	20 Years of Consumer Insights: What IFIC's Food & Health Survey Tells Us about Consumers and Food Safety
Room 25ABC	RT10	Comparing Different Approaches to Identify *Salmonella* Serotypes of Concern in Meat and Poultry
Room 3	RT11	Addressing the Emerging Threat of Psychoactive Compounds in Food
Room 4	T7	Technical Session 7 – Antimicrobials
Room 5	T8	Technical Session 8 – Developing Scientist Technical Finalists

EVENING EVENTS

5:15 p.m. – 6:15 p.m.		Monday Exhibit Hall Reception
5:30 p.m. – 6:30 p.m.		
Room 5		Southeast Asia Association for Food Protection Meeting
Room 6		Nepalese Association for Food Protection Meeting
5:30 p.m. – 7:00 p.m.		
Room 4		Indian Association for Food Protection in North America Meeting

IAFP 2025 PROGRAM

MONDAY, JULY 28

MORNING

Posters will be on display 8:30 a.m. – 6:15 p.m. (see details beginning on page 62)

S01 **Myth Busting – Safety of Food Additives and Ingredients**
Grand Ballroom AB
Organizer: Neal Saab
Convenor: Paul Hanlon
Food Chemical Hazards and Food Allergy PDG
Food Safety Assessment, Audit and Inspection PDG

08:30 AM Myths and Realities of Food Ingredient Safety
Craig Llewellyn, Exponent, Sandy Springs, GA, USA

09:00 AM Challenges and Approaches for Ensuring Safety of Existing Food Ingredients and Constituents
Norbert Kaminski, Michigan State University, East Lansing, MI, USA

09:30 AM Association versus Causation, Myths and Realities
Dominik Alexander, MetaMethod, San Diego, CA, USA

S02 **Future Directions of Salmonella Control for Poultry Products – What's Next?**
Grand Ballroom C
Organizer: Garth Hoffmann
Convenor: Alexandra Calle
Meat and Poultry Safety and Quality PDG
Food Safety Assessment, Audit and Inspection PDG
Sponsored by Thermo Fisher Scientific

08:30 AM How USDA FSIS *Salmonella* Testing Methods Can Support *Salmonella* Control Strategies
William K. Shaw, USDA FSIS, Washington, D.C., USA

09:00 AM Alternative Regulatory Pathway to Address *Salmonella* in Poultry Products
Ashley Peterson, National Chicken Council, Washington, D.C., USA

09:30 AM Pathways toward More Representative Sampling of Poultry for Use in Process Control Testing and Finished Product Lotting
Dr. Terry Arthur, FREMONTA Corp, San Jose, CA, USA

RT01 **Challenges and Opportunities around the New FSMA Pre-Harvest Agricultural Water Rule: Safety, Sustainability, and the Need for Integrated Water Resource Management**
Atrium A
Organizers: Elizabeth Bihn, Elisabetta Lambertini
Moderator: Elizabeth Bihn
Water Safety and Quality PDG
Fruit and Vegetable Safety and Quality PDG

08:30 AM Charles Gerba, University of Arizona, Tucson, AZ, USA
Dr. Siddhart Kishore, UC Merced, Merced, CA, USA
Joan Rose, Michigan State University, East Lansing, MI, USA
Robert Sakata, Colorado Department of Agriculture, Denver, CO, USA

RT02 ***Listeria* Quantification in Dairy and RTE: Challenges, Innovations, Perspectives**
Room 25ABC
Organizers: Craig Jewell, Olivia Arends
Moderators: Craig Jewell, Julie Weller
Dairy Quality and Safety PDG
Applied Laboratory Methods PDG

08:30 AM Alex Brandt, Food Safety Net Services/Certified Group, San Antonio, TX, USA
Sanjay Gummalla, American Frozen Food Institute, Bethesda, MD, USA
Jeffrey Kornacki, Kornacki Microbiology Solutions, Inc., Madison, WI, USA
Brian Kraus, Wells Enterprises, Inc., Le Mars, IA, USA
Staci Richardson, Schreiber Foods, Green Bay, WI, USA

S03 **Fur Real and Not Just a Bone to Pick: Pathogen Control in Manufacturing Raw Pet Food Diets**
Room 26A
Organizer: Alvin Lee
Convenor: Alvin Lee
Animal and Pet Food Safety PDG
Low-Water Activity Foods PDG

08:30 AM Antimicrobial Use in Raw Diet Pet Foods to Enhance HPP Efficacy
Alvin Lee, Institute for Food Safety and Health, Bedford Park, IL, USA

09:00 AM Microbial Safety of Freeze-Dried Raw Pet Food
Lloyd Parks, Cuddon Freeze Dry, Blenheim, New Zealand

09:30 AM Processing Controls for Highly Pathogenic Avian Influenza Virus in Pet Foods

S04 **Future-Proofing Retail Success: The Power of Food Safety Culture in a Rapidly Evolving Industry**
Room 26BC
Organizer: Lone Jespersen
Convenor: Bobby Krishna Thulasi
Food Safety Culture PDG
Retail and Foodservice PDG

08:30 AM Nurturing a Culture of Trust: Our Company's Commitment to Food Safety Excellence
Andrew Clarke, Loblaw Companies Limited, Etobicoke, ON, Canada

09:00 AM From Concept to Action: Research-Driven Strategies for Assessing and Enhancing Retail Food Safety Culture
Shingai Nyarugwe, University of Central Lancashire, Preston, UK

09:30 AM Pilot Project Insights: A Retailer's Journey in Transforming Food Safety Culture
Larry Kohl, Ahold Delhaize USA, Salisbury, NC, USA

S05 **Food Traceability Rule Updates, Industry Compliance Preparation and Industry Training Curriculum**
Room 1
Organizer: Melinda Hayman
Convenor: Jason Wan
Food Safety Education PDG
Food Law PDG
CCFI

08:30 AM Food Traceability Rule Implementation and Resource Updates; Industry Training Curriculum
Melinda Hayman, U.S. Food and Drug Administration, College Park, USA

09:00 AM How Industry is Preparing for Compliance with the Food Traceability Rule
Jennifer McEntire, Food Safety Strategy LLC, Frederick, MD, USA| Michael Roberson, Publix Super Markets, Inc., Lakeland, FL, USA| Lisa Weddig, National Fisheries Institute, Herndon, VA, USA

09:30 AM FTR Training Curriculum for Industry – Objectives, Key Components, and Q&A
Jason Wan, Institute for Food Safety and Health, Summit Argo, IL, USA

RT03 **Defining a Food Safety Data Standard**
Room 3
Organizers: Joseph Heinzelman, Angela Anandappa
Moderator: Angela Anandappa
Data Management and Analytics PDG

08:30 AM Joseph Heinzelman, Okemos, MI, USA
Melissa Calicchia, Food Microbiological Laboratories, Inc., Cypress, CA, USA
Mark Carter, MC Squared, Chattanooga, TN, USA
William Melnyczenko, Mérieux NutriSciences - Silliker Labs, Chicago, IL, USA
Hannes Pouseele, bioMérieux, Inc., Hazelwood, MO, USA
Robert Salter, Charm Sciences, Inc., Lawrence, MA, USA

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T01 **Food Allergens, Packaging, and Epidemiology**
Room 4
Convenors: Erin Crowley, Steven Gendel

08:30 AM **T1-01:** Decoding the Surveillance Pyramid: Laboratory Testing for Acute Gastroenteritis
Alexandra Edmundson, University of Minnesota, Minneapolis, MN, USA
Melanie Firestone, University of Minnesota School of Public Health, Minneapolis, MN, USA | Craig Hedberg, University of Minnesota School of Public Health, Minneapolis, MN, USA

08:45 AM **T1-02:** Global Foodborne Outbreaks Associated with Nuts and Nut Products from 2000 to 2024
Joanna Rothwell, University of California-Davis, Davis, CA, USA | Linda J. Harris, University of California-Davis, Davis, CA, USA | Alda Pires, University of California-Davis School of Veterinary Medicine, Davis, CA, USA

09:00 AM **T1-03:** Harnessing the Power of 10 MeV Electron Beam Technology to Reduce Allergen Levels in Peanuts
Suresh Pillai, Texas A&M University, College Station, TX, USA | Tonali Lara-Ramos, Texas A&M University, College Station, TX, USA | Chandni Praveen, Texas A&M University, College Station, USA

09:15 AM **T1-04:** Potential of Guar Gum in Active Packaging of Fruits and Confectionery
Rowaida Khalil, Alexandria University, Alexandria, Egypt

09:30 AM **T1-05:** Inactivation of Multidrug-Resistant *Salmonella enterica* in Foods Using TiO2-TCPP Incorporated Cellulose Nanofibril-Based Photocatalytic Packaging
Zhiyuan Xu, Virginia Tech, Blacksburg, VA, USA | Zunhuang He, Virginia Tech, Blacksburg, VA, USA | Haibo Huang, Virginia Tech, Blacksburg, VA, USA
Young-Teck Kim, Virginia Tech, Blacksburg, VA, USA | Yilin Li, Virginia Tech, Blacksburg, VA, USA | Hongchen Shen, Virginia Tech, Blacksburg, VA, USA
Danmeng Shuai, The George Washington University, Washington, D.C., USA
Monica Ponder, Virginia Tech, Blacksburg, VA, USA | Yun Yin, Virginia Tech, Blacksburg, VA, USA

09:45 AM **T1-06:** Carbon Dots from Rhizome Peels for Multifunctional Food Safety Technologies: Active Packaging Indicators, Anti-Counterfeiting Solutions, and Functional Compounds
Arunachalasivamani Ponnusamy, Prince of Songkla University, Hat Yai, Songkhla, Thailand | Soottawat Benjakul, Prince of Songkla University, Hat Yai, Songkhla, Thailand | Thummanoon Prodpran, Prince of Songkla University, Hat Yai, Songkhla, Thailand | Jong-Whan Rhim, Kyung Hee University, Seoul, Republic of Korea

T02 **Seafood and Low-Water Activity Foods**
Room 5
Convenors: Kristen Gibson, Jenny Maloney

08:30 AM **T2-01:** Evaluating Sanitizer Efficacy against *Salmonella* in Low-Moisture Foods and Validation of Surrogates for Effective Sanitation
Kavita Patil, University of Arkansas, Fayetteville, AR, USA | Jennifer Acuff, University of Arkansas, Fayetteville, AR, USA | Manita Adhikari, University of Arkansas, Fayetteville, AR, USA | Karina Desiree, University of Arkansas, Fayetteville, AR, USA | Peter Rubinelli, University of Arkansas, Fayetteville, AR, USA
Travis Sananikone, University of Arkansas, Fort Smith, AR, USA

08:45 AM **T2-02:** Pilot-Scale Validation of Steam Pre-Treatment and Two-Stage Drying for Enhanced *Salmonella* Control in Apple Drying
Narindra Randriamiarintsoa, Michigan State University, East Lansing, MI, USA
Ian Hildebrandt, Michigan State University, East Lansing, MI, USA | Michael James, Michigan State University, East Lansing, MI, USA | Bradley Marks, Michigan State University, East Lansing, MI, USA | Emily Woodyard, Michigan State University, East Lansing, MI, USA

09:00 AM **T2-03:** Thermal Inactivation Parameters for *Salmonella* in Lipid-Based Nutrient Supplements
Mario Cobo, Cornell University, Geneva, NY, USA | Robert Baker, World Food Programme, Rome, Italy | Jason Curran, Cornell University, Geneva, NY, USA
Ann Vegdahl, Cornell University, Geneva, NY, USA | Randy Worobo, Cornell University, Geneva, NY, USA

09:15 AM **T2-04:** The Effect of Temperature, Bed Depth, and Air Velocity for the Prediction of *Salmonella* Inactivation during Hot-Air Apple Drying
Xiyang Liu, Institute of Food Safety and Health, Bedford Park, IL, USA
Nathan Anderson, U.S. FDA, Bedford Park, IL, USA | Elizabeth Grasso-Kelley, U.S. FDA, Darien, IL, USA | Alvin Lee, Institute for Food Safety and Health, Bedford Park, IL, USA

09:30 AM **T2-05:** Assessment of Aquaculture Practices on Oyster and Water Microbiomes Using Shotgun Metagenomics in the Delmarva Peninsula
Anuradha Punchihewage Don, University of Maryland Eastern Shore, Princess Anne, MD, USA | Angelo DePaola Jr., Angelo DePaola Consulting, LLC, Coden, AL, USA
Christopher Grim, FDA, College Park, MD, USA | Nur Hasan, EzBiome Inc., Gaithersburg, MD, USA | Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA | Mary Snow, University of Maryland Eastern Shore, Princess Anne, MD, USA

09:45 AM **T2-06:** Evaluation of the Thermal Tolerance Mediated by Cross-Protection from the CHASRI in *Salmonella*
Julie Haendiges, US FDA, College Park, MD, USA | Anna Brover, U.S. FDA, College Park, MD, USA | Christina M. Ferreira, U.S. FDA, College Park, MD, USA | Maria Hoffmann, U.S. FDA, Washington, D.C., USA | Rohan Tikekar, University of Maryland-College Park, College Park, MD, USA | Jie Zheng, U.S. FDA, College Park, MD, USA

S06 **Preventive Controls, HACCP and Beyond: Effectiveness of Current Risk Reduction Strategies in the Global Food Supply Chain**
Grand Ballroom AB
Organizers: Carol Wallace, Andrew Wilson
Convenor: Sara Mortimore
HACCP Utilization and Food Safety Systems PDG
Food Safety Education PDG
Sponsored by Vitsab International AB

10:45 AM Learnings from Ten Years of the FSMA Preventive Controls Rule: Are Food Safety Plans Getting Better and Has It Delivered the Expected Reduction in Foodborne Illness?
Benjamin Warren, U.S. FDA, Cntr. for Food Safety & Applied Nutrition, Office of Food Safety, Woodbury, MN, USA

11:15 AM Overcoming HACCP Application Limitations: Building Essential Food Safety Competency for Effective Risk Reduction across Food Businesses
Carol Wallace, University of Central Lancashire, Preston, UK

11:45 AM From Interpretation to Implementation: Global Considerations in Food Safety Supply Chain Risk Management
Andrew Wilson, Cultivate SA, Brisbane, Australia

S07 **Risk Assessments for Precautionary Labeling Allergen Thresholds**
Grand Ballroom C
Organizers: Steve Taylor, Joseph Baumert
Convenor: Tracie Sheehan
Food Safety Assessment, Audit and Inspection PDG
Food Chemical Hazards and Food Allergy PDG

10:45 AM Quantitative Risk Assessment of Allergens Based on DBPCFC Clinical Trials
Joseph Baumert, University of Nebraska-Lincoln, Lincoln, NE, USA

11:15 AM Science-Driven Precautionary Statements: Leveraging the FAO/WHO Allergen ED05 Reference Doses for Australia's VITAL 4.0
Jasmine Lacis-Lee, Merieux NutriSciences AQ and The Allergen Bureau, Brisbane, Australia

11:45 AM Methodology for Allergen Threshold Regulatory Limits in The Netherlands
Angèle van den Heuvel, Allergenen Consultancy B.V., Oosteinde, The Netherlands

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RT04 **Crossing the Finish Line: Industry's Race to FSMA 204 Compliance**
Atrium A
Organizer: Lisa Lupo
Moderator: Lisa Lupo
Food Law PDG

10:45 AM Patrick Guzzle, National Restaurant Association, Boise, ID, USA
Quincy Lissaur, SSAFE, Brazil
Eric Marshall, Leavitt Partners, Washington, D.C., USA
Raquel Maymir, General Mills, Cincinnati, Ohio, USA
Benjamin Miller, The Acheson Group, Northfield, MN, USA

S08 **Avian Influenza and Virus Confirmations – Be Careful What You Wish For**
Atrium C
Organizer: Daniel DeMarco
Convenor: Daniel DeMarco
Applied Laboratory Methods PDG
Viral and Parasitic Foodborne Disease PDG

10:45 AM You Have Brains in Your Head. You Have Feet in Your Shoes. You Can Call a Positive Anything You Choose—The Challenges of Virus Detection Methods Results Reporting
Daniel DeMarco, San Diego, CA, USA

11:15 AM The Challenges of Viral Culture and Alternate Confirmation Approaches—Lessons Learned from Dengue Can be Applied to Avian Influenza
Jennifer DeMarco, Eurofins DiscoverX, San Diego, CA, USA

11:45 AM An Update on Status of High Throughput Testing for Avian Influenza and Other Foodborne Viruses
Keith Poulsen, University of Wisconsin, Madison, WI, USA

RT05 ***Listeria* Control in Ready-to-Eat Foods: Addressing the Continued Challenge**
Room 25ABC
Organizers: Peggy Cook, John David
Moderator: Peggy Cook
Applied Laboratory Methods PDG
Data Management and Analytics PDG

10:45 AM Sharon Beals, BeaconPoint Labs, Kannapolis, NC, USA
Denise Eblen, USDA/FSIS, Washington, D.C., USA
Gabriela Lopez Velasco, Neogen, Oakdale, MN, USA
Martin Wiedmann, Cornell University, Ithaca, NY, USA

S09 **Implications of Extreme Weather on Food Safety from Farm-to-Fork and Beyond**
Room 26A
Organizer: Claire Murphy
Convenor: Camila Rodrigues
Water Safety and Quality PDG

10:45 AM California Case Studies
Geetika Joshi, California Department of Food and Agriculture, Sacramento, CA, USA

11:15 AM Implications of Extreme Weather on Food Safety from Farm-to-Fork and Beyond
Erika Austhof, University of Arizona College of Public Health, Tucson, AZ, USA

11:45 AM Management and Mitigation Strategies
Laura Strawn, Virginia Tech, Blacksburg, VA, USA

S10 **A Decade of Food Safety Culture: Advancing Food Safety through Organizational Culture and Human Behaviors**
Room 26BC
Organizers: Andrew Wilson, Conrad Choiniere
Convenor: John Boyce
Food Safety Culture PDG
International Food Protection Issues PDG

10:45 AM Streamlining Success: Simplifying Food Safety Culture Integration for Effective Risk Management
Lone Jespersen, Cultivate, Hauterive, Switzerland

11:15 AM Driving Food Safety Innovation: The Role of Research in Shaping Organizational Culture and Practices
Lawrence Goodridge, University of Guelph, Guelph, ON, Canada

11:45 AM The Regulatory Journey: Transforming Food Safety Culture through Policy and Oversight
Conrad Choiniere, U.S. FDA, Montgomery, AL, USA

S11 **When Is a "Negative" Truly "Negative?"**
Room 1
Organizers: Joshua Gurtler, Jeffrey Kornacki
Convenors: Joshua Gurtler, Jeffrey Kornacki
Applied Laboratory Methods PDG

10:45 AM Legal Considerations of False Negatives
Brian Eyink, Hogan Lovells, Washington, D.C., USA

11:15 AM Test Methodology Considerations: Weaknesses Common to Cultural, EIA, PCR, and Other Approaches, Including Case Studies Where Target Organisms Were Recovered from "Negative" Cultural Confirmations
Jeffrey Kornacki, Kornacki Microbiology Solutions, Inc., Madison, WI, USA

11:45 AM Laboratory Quality Systems Considerations to Negative Testing Determinations
Bradley Stawick, AOAC International, Bartlett, TN, USA

RT06 **Practical Assessment of Risk: What Modeling Tools and Techniques to Use?**
Room 3
Organizers: Yuhuan Chen, Vijay Juneja
Moderators: Yuhuan Chen, Marcel Zwietering
Modelling and Risk Analysis PDG

10:45 AM Vijay Juneja, USDA-ARS-ERRC, Wyndmoor, PA, USA
Bala Kottapalli, T. Marzetti, Lewis Center, OH, USA
Girvin Liggans, FDA, College Park, MD, USA
Donald Schaffner, Rutgers University, New Brunswick, NJ, USA
Panagiotis Skandamis, Agricultural University of Athens, Kallithea, Greece

T03 **Epidemiology**
Room 4
Convenors: Anderson Sant'Ana, Francisco Zagmutt

10:45 AM **T3-01:** The Challenge of Crowdsourcing a Foodborne Illness Outbreak
Lynette Krampf, Concordia University, Mequon, WI, USA | Craig Hedberg, University of Minnesota School of Public Health, Minneapolis, MN, USA
Melanie Firestone, University of Minnesota School of Public Health, Minneapolis, MN, USA

11:00 AM **T3-02:** Risk-Based Approach to Prioritize Control of *Salmonella* Serovars in Foods
Dan Taylor, EpiX Analytics, Fort Collins, CO, USA | Solenne Costard, EpiX Analytics, Fort Collins, CO, USA| Mason Munro-Ehrlich, EpiX Analytics, Fort Collins, CO, USA
Jane Pouzou, EpiX Analytics, Fort Collins, CO, USA | Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

11:15 AM **T3-03:** Machine Learning Identification of Genetic Virulence Profiles of Higher Virulence Serovars of Non-Typhoidal *Salmonella enterica* Subspecies *enterica*
Mason Munro-Ehrlich, EpiX Analytics, Fort Collins, CO, USA | Solenne Costard, EpiX Analytics, Fort Collins, CO, USA | Jane Pouzou, EpiX Analytics, Fort Collins, CO, USA | Dan Taylor, EpiX Analytics, Fort Collins, CO, USA | Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

11:30 AM **T3-04:** Investigation of a Multi-Year *Listeria monocytogenes* Outbreak Linked to Cotija and Queso Fresco-Style Cheeses
Margaret Kirchner, FDA CORE, College Park, MD, USA | Amanda Conrad, CDC, Atlanta, GA, USA | Laura Gieraltowski, CDC, Atlanta, GA, USA | Kailey Lewis, FDA, College Park, MD, USA | Julia Mangia, FDA CORE, College Park, MD, USA
Alexandra Palacios, CDC, Atlanta, GA, USA | Grace Pederson, CDC, Atlanta, GA, USA
Monique Salter, FDA, College Park, MD, USA | Daniela Schoelen, FDA, College Park, MD, USA Brooke Whitney, FDA, Fairfax, VA, USA

11:45 AM **T3-05:** *Vibrio vulnificus* Epidemiology and Predictors of Mortality, 2000-2022
Marisa Hast, CDC, Atlanta, GA, USA | Craig Baker-Austin, Centre for Environment, Fisheries and Aquaculture Science, Weymouth, Dorset, UK | Zhoahui Cui, CDC, Atlanta, GA, USA | Michael Hughes, CDC, Atlanta, GA, USA | Iain Lake, University of East Anglia, Norwich, Norfolk, UK | Pritiza Paromita, CDC, Atlanta, GA, USA

12:00 PM **T3-06:** Transmission of *C. jejuni* between Humans and Livestock in Rural Ethiopia
Arie Havelaar, University of Florida, Gainesville, FL, USA | Menuka Bhandari, Virginia Tech, Blacksburg, VA, USA | Nigel French, Massey University, Palmerston North, New Zealand | Tine Hald, Technical University of Denmark, Lyngby, Denmark
Mark Manary, Washington University in St. Louis, St. Louis, MI, USA
Jonathan Marshall, Massey University, Palmerston North, New Zealand
Sarah McKune, University of Florida, Gainesville, FL, USA | Bahar Mummed Hassen, Haramaya University, Dire Dawa, Ethiopia | Gireesh Rajashekara, University of Illinois, Urbana-Champaign, IL, USA | Nitya Singh, University of Florida, Gainesville, FL, USA | Helen Smith, Massey University, Palmerston North, New Zealand
Cecilie Thystrup, Technical University of Denmark, Lyngby, Denmark
Jemal Yusuf Hassen, Haramaya University, Dire Dawa, Ethiopia

T04 Meat, Poultry and Eggs, and Dairy

Room 5

Convenors: Srinivasarao Bandla, Vik Dutta

10:45 AM **T4-01:** Effect of Bioprotective Cultures on *Listeria monocytogenes* in High Moisture Cheese
Swara Bhatt, University of Connecticut, Storrs, CT, USA | Dennis D'Amico, University of Connecticut, Storrs, CT, USA

11:00 AM **T4-02:** Microbiological Hygiene of Minas Artisanal Cheese (Queijo Minas Artesanal), a Raw Milk Cheese Produced in Brazil
Luis Augusto Nero, Universidade Federal de Viçosa, Vicosa, Minas Gerais, Brazil
Lucas Alves Damasceno, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brazil | Gabriel Alves Silva Oliveira, Universidade Federal de Viçosa, Viçosa, Brazil
Cinzia Caggia, Università di Catania, Catania, Italy | Rita de Cássia Vieira Faria, Universidade Federal de Viçosa, Viçosa, Brazil | Rafaela de Melo Tavares, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brazil
Antonio Fernandes Carvalho, Universidade Federal de Viçosa, Viçosa, Brazil
Caio Fialho Freitas, Universidade Federal de Viçosa, Viçosa, Brazil | Cinzia Randazzo, Università di Catania, Catania, Italy | Ricardo Seiti Yamatogi, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brazil

11:15 AM **T4-03:** Evaluation of a Multipronged Training Approach to Assist Small and Medium Dairy Processors in *Listeria* Environmental Monitoring Using Survey and Molecular Methods
Caroline Yates, Cornell University, Ithaca, NY, USA | Aljosa Trmcic, Cornell University, Ithaca, NY, USA| Martin Wiedmann, Cornell University, Ithaca, NY, USA

11:30 AM **T4-04:** Biofilm Dynamics of *Listeria monocytogenes* and *Ralstonia insidiosa* under Cheese Processing and Aging Conditions
Eurydice Aboagye, University of Vermont, Williston, VT, USA | Andrea Etter, University of Vermont, Burlington, VT, USA | Ian Lee, University of Vermont, Burlington, VT, USA | Samuel Maltese, University of Vermont, Burlington, VT, USA

11:45 AM **T4-05:** Relationship between *Enterobacteriaceae* and *Cronobacter* as Determined by the Application of a Standardized Qualitative Method
Intisar Khan, Nestlé, Leicestershire, UK | Balamurugan Jagadeesan, Nestlé Research, Lausanne, Switzerland | Enrico Chavez, Nestlé Research, Lausanne, Switzerland | Cedric Gerard, Nestlé Research, Lausanne, Switzerland

12:00 PM **T4-06:** Prevalence, Characterization, and Antimicrobial-Resistance (AMR) Profiling of *Salmonella* from Backyard Chickens
Richard Yaw Otwey, University of Maryland Eastern Shore, Princess Anne, MD, USA
Sandesh Chapagain, University of Maryland Eastern Shore, Princess Anne, MD, USA
Ariel Clay, University of Maryland Eastern Shore, Princess Anne, MD, USA
Janak Dhakal, University of Maryland Eastern Shore, Princess Anne, MD, USA
Jennifer R. Timmons, University of Maryland Eastern Shore, Princess Anne, MD, USA

10:45 AM Marketplace to Connect IAFP Professionals Worldwide on Food Safety in Asia

AMP-01: Global Models, Asian Realities: The Next Chapter in Food Safety Culture
Huikey Lee, Sunway University, Petaling Jaya, Selangor, Malaysia

AMP-02: Unveiling Insights: The Use of Data in Dubai's Food Safety Strategy. How Data from Multiple Systems are Collected and Utilized for Making Informed Decisions to Enhance Food Safety in Dubai
Bobby Krishna Thulasi, Dubai Municipality, Dubai, UAE

AMP-03: DMRI Predict – A Live Demonstration of How to Quick and Easy Predict Shelf Life and Safety of Meat, Meat Products, and Meat Alternatives
Gry Terrell, Danish Technological Institute, Denmark

AMP-04: Do the Japanese Really Eat Raw Chicken, or 'Chicken Sashimi'? How is That Crazy Diet Possible?
Shigenobu Koseki, Hokkaido University, Sapporo, Japan

AMP-05: How Can Asia Lead in Modernizing Traditional Chinese Medicine While Ensuring Food Safety? Exploring 'Food as Medicine' - A Bridge between Ancient Wisdom and Evidence-Based Healthcare
Nelly Lamb, Food Safety Consortium, Hong Kong| Terence Lau, Food Safety Consortium, Hong Kong

AMP-06: The Indian Association for Food Protection in North America: Bridging Borders by Advancing Food Safety
Vijay Krishna, Glanbia Performance Nutrition, Downers Grove, IL, USA

AMP-07: Consumer Communication and Community: Being Involved Extensively in Consumer-Facing Food Safety Communication, I Wish to Develop Professional Community in Our Region, Examining How We Educate Consumers in Food and Personal Hygiene for Safety
Julian Cox, UNSW, Australia

AMP-08: Collaboration Is the Key to Advance Food Safety: Explore How Cross-Sector Collaboration Empowers Food Safety Innovation. Be Inspired and Gain Practical Insights from Leaders Driving Progress across Industry, Government, and Academia in Asia
Cindy Jiang, Food Safety Global, Woodridge, IL, USA

AMP-09: Premier Platform Connecting Global Food Safety Leaders to Share Science-Based Solutions, Regulatory Updates, and Innovative Technologies for Advancing Food Safety, Risk Management, and Quality Assurance across China and International Markets
Cary Sun, China International Food Safety & Quality Conference (CIFSQ), Hong Kong

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AMP-10: An Overview of Bacterial Contamination in Japanese Domestic Foods, Sharing 2000–2022 Survey Data, Trends, and a New Interactive Visualization Tool for Food Safety Analysis
Junpei Hosoe, Hokkaido University, Sapporo, Japan

AMP-11: Keep It Clean and Safe! Empowering Safe Food Production in Asia through Hygienic Design and Engineering Expertise Solutions, Aligned with Sustainable Contributions
Adwy van den Berg, European Hygienic Engineering Design Group, The Netherlands|
Patrick Wouters, European Hygienic Engineering Design Group, The Netherlands

AMP-12: The Bangladesh Association for Food Protection
Debabrata Biswas, University of Maryland, College Park, MD, USA

AMP-13: Water Reuse Inside Food/Beverage Plants: Getting Started and Using Communication Strategies to Upscale Sustainability and Downscale Water Use. Sharing Water Management, Water Recycling and UV Disinfection Expertise
Phyllis Posy, PosyGlobal, Jerusalem, Israel

AMP-14: Predictive Microbiology: Interactive Software Tools for Stochastic Model Outputs Without Coding – Practical Demonstrations and Resources Online
Kento Koyama, Graduate School of Agricultural Science, Sapporo, Japan

AMP-15: Why *Listeria monocytogenes* is Not a Major Foodborne Pathogen in South Korea with Only a Single Domestic Outbreak Reported to Date
Sangmi Lee, Chungbuk National University, Cheongju, South Korea

AMP-16: Challenges and Strategies to Help Business Assess Opportunities for Exporting Products to Asian Countries – Conducting Food Safety Risk Assessment to Ensure Compliance with Exporting Country Food Safety Standard or Customer Requirement
Zengxin Li, Rich Products Corporation, USA

AMP-17: Do Changing Consumption Trends Raise Food Safety Risk? #1
Ki Sun Yoon, Kyung Hee, Seoul, Republic of South Korea

AMP-18: Do Changing Consumption Trends Raise Food Safety Risk? #2
Ki Sun Yoon, Kyung Hee, Seoul, Republic of South Korea

AMP-19: Taiwan's Hygiene Rating System: Incentivizing Regulatory Compliance for Food Safety and Quality
Shihyu Chuang, University of Massachusetts Amherst, Amherst, MA, USA

AMP-20: FAO Food Safety Project Work in Asia: Empowering Countries in Asia to Produce Safe Food; Leading International Efforts to Defeat Hunger; Ensuring Food Security Means Ensuring Food is Safe
Jorge Pinto Ferreira, FAO, Italy

12:30 PM – 1:30 PM U.S. Regulatory Update on Food Safety

Grand Ballroom AB

Convenors: Tim Jackson, Mark Carter

MR. KYLE DIAMANTAS J.D., FDA
ACTING DEPUTY COMMISSIONER FOR HUMAN FOODS
Food and Drug Administration

DR. DENISE EBLEN
ADMINISTRATOR
U.S. Department of Agriculture's Food Safety and Inspection Service

S12 Risky Business: Understanding and Communicating the Costs and Benefits of Risk Mitigation Programs for Food Safety

Grand Ballroom AB

Organizers: Timothy Jackson, Mark Moorman, Hilary Whitham
Convenors: Timothy Jackson, Lone Jespersen

01:30 PM Economic Benefits of Food Safety Programs for Public Safety
Felicia Wu, Michigan State University, East Lansing, USA

02:00 PM Balancing the Cost of Recalls, Food Safety Incidents and Failures
Bernhard Steves, Steves Risk Strategies LLC, Denver, CO, USA

02:30 PM Determining Optimal Organizational and Program Design for Food Safety
Sara Mortimore, Excelsior, MN, USA

03:45 PM Manufacturing Excellence in Food Production
Gregory Pritchard, Nestlé USA, Inc., Glendale, CA, USA

04:15 PM Economics of Food Safety in Retail and Institutional Settings
Karleigh Bacon, McDonald's Corporation, Chicago, IL, USA

04:45 PM Economics and Food Safety Practices in Agriculture
Gregory Astill, DecisionNext, Washington, D.C., USA

S13 Outbreaks Linked to Cantaloupe: Improving Food Safety and Protecting Public Health

Grand Ballroom C

Organizers: Katherine Marshall, Colin Schwehsohn
Convenors: Michelle Danyluk, Scott Monroe

Fruit and Vegetable Safety and Quality PDG
Committee on Control of Foodborne Illness

01:30 PM Outbreaks Linked to Melons, USA, 2012-2021, and Consumer Perceptions and Handling of Cantaloupe, 2024
Katherine Marshall, CDC, Atlanta, GA, USA

02:00 PM Summary of On-Farm Investigation Findings for Select Outbreaks Linked to Melons
Kristin Esch, FDA, College Park, MD, USA

02:30 PM Industry Food Safety Guidance on Cantaloupes and Netted Melons
Sonia Salas, Western Growers Association, Irvine, CA, USA

RT07 Decoding Food Allergen Methods: Why, When, and How to Implement Analysis

Atrium A

Organizers: Melanie Downs, Jodi Nickerson
Moderators: Melanie Downs, Jodi Nickerson

Food Chemical Hazards and Food Allergy PDG
Applied Laboratory Methods PDG

01:30 PM Laura Allred, Gluten Intolerance Group, Auburn, WA, USA
Simon Flanagan, Mondelez International, Birmingham, UK
Jasmine Lacis-Lee, BVAQ and The Allergen Bureau, Brisbane, Australia
Markus Lacorn, R-Biopharm, Darmstadt, Germany
Gabriela Lopez Velasco, Neogen, Oakdale, MN, USA

RT08 Career GPS: Guiding Your Professional Journey

Room 25ABC

Organizer: Sarah Smith-Simpson
Moderator: Sarah Smith-Simpson

Developing Food Safety Professionals PDG
Student PDG

01:30 PM Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA
Nadia Narine, Lumar Food Safety Services Ltd., Richmond Hill, ON, Canada
Gustavo Reyes, Western Growers Science, St. Louis, MO, USA
Staci Richardson, Schreiber Foods, Green Bay, WI, USA
Donald Schaffner, Rutgers University, New Brunswick, NJ, USA
Trushenkumar Shah, University of Connecticut, Storrs, CT, USA

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S14 **Innovative Product Design for Quality and Food Safety – Creative Approaches to Novel Plant-Based Products Development**
Room 26A
Plant-Based Alternative Products Quality and Food Safety PDG
HACCP Utilization and Food Safety Systems PDG

01:30 PM Challenge Study Design and Considerations for Novel Plant-Based Products
Olivia Arends, The Kraft Heinz Company, Glenview, IL, USA

02:00 PM Challenges and Opportunities for Improving Food Safety and Quality by Plant-Based Industry
Alejandra Ramirez-Hernandez, Impossible Foods, Mountain View, CA, USA

02:30 PM Microbiome-Derived Antimicrobial Solutions for Increased Food Safety and Shelf Life of Plant-Based Alternatives
Nicolette Hall, Kerry, Beloit, WI, USA

S15 **Cutting through the Hype: Real-World Benefits of AI in Food Safety**
Room 26BC
Organizers: Mark Moorman, Sarah Murphy, Carrie Rigdon
Convenors: James Doyle, Mark Moorman, Carrie Rigdon
Data Management and Analytics PDG
Modelling and Risk Analysis PDG

01:30 PM Transforming Environmental Monitoring with Machine Learning and Generative AI
Amani Babekir, Ecolab, Greensboro, NC, USA

02:00 PM AI's Next Leap: What Collaborative Journeys are Teaching Us
Brendan Ring, Creme Global, Grand Canal Quay, Dublin, Ireland

02:30 PM Advancing Safety in High-Risk Food Processes with AI-Driven Risk Models
David Monk, Newnan, GA, USA

S16 **Daily Lunch Meat Safety: *Listeria* Outbreaks and Recalls Linked to Luncheon Meat**
Room 1
Organizers: Saurabh Kumar, Rigo Soler, Surabhi Wason
Convenor: Marcos Sanchez
Meat and Poultry Safety and Quality PDG
Applied Laboratory Methods PDG

01:30 PM Understanding the Boar's Head Outbreak and Recalls Related to Luncheon Meat
Mindy Brashears, Texas Tech University, Wolfforth, TX, USA

02:00 PM Smart Environmental Monitoring: A Powerful Ally in Pathogen Control
Daniele Sohier, Hygiena, Lyon, France

02:30 PM Predictive Modeling Tools to Support Quicker Decision-Making Regarding Food Safety
Joyjit Saha, Kerry, Beliot, IL, USA

T05 **Sanitation and Hygiene**
Room 4
Convenors: Todd Frantz, Erin Mertz

01:30 PM **T5-01:** Product Formulation and Rubbing Time Impact the Inactivation of Viruses on Hands by Foam-Based Hand Sanitizers
Francis Torko, University of Arkansas, Fayetteville, AR, USA | Kristen Gibson, University of Arkansas, Fayetteville, AR, USA

01:45 PM **T5-02:** Determining the Impact of Surface Roughness on Disinfection Efficacy of Commercial Products against *Pseudomonas aeruginosa* and *Staphylococcus aureus* Wet Surface Biofilms
Xiuping Jiang, Clemson University, Clemson, SC, USA | Kayley Stallings, Clemson University, Clemson, USA | David Buckley, Diversey, Inc., Charlotte, NC, USA
Peter Teska, Diversey, Fort Mill, SC, USA

02:00 PM **T5-03:** A Data-Focused Analysis of Leafy Green Harvest Equipment Cleaning & Sanitation Practices
LaTaunya Tillman, University of Florida, Lake Alfred, FL, USA | Michelle Danyluk, University of Florida, Lake Alfred, FL, USA | Clara Diekman, University of Florida, Lake Alfred, FL, USA | Justin Kerr, Factor IV, Atascadero, CA, USA | Channah Rock, University of Arizona, Maricopa, AZ, USA | Trevor Suslow, Universtiy of California, Davis, West Linn, OR, USA | Dalton Zingali, University of Arizona, Maricopa, AZ, USA

02:15 PM **T5-04:** Biofilm Formation of Typhoidal and Nontyphoidal *Salmonella* Serovars and Their Sensitivity to Amygdalin and Lactic Acid Treatments
Sandhya Thapa, Tennessee State University, Nashville, TN, USA | Aliyar Fouladkhah, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Shahid Chowdhury, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Niraj Ghimire, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Ranju Kafle, Tennessee State University, Nashville, TN, USA | Yusef Lighari, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Junice Sibley, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA

02:30 PM **T5-05:** Novel Dry Surface Inoculation Methodology Using Electrostatic Powder Coating Technique for Low-Moisture Food Sanitation Experiment
Arshpreet Kaur Khattra, Michigan State University, East Lansing, MI, USA
Sanghyup Jeong, Michigan State University, East Lansing, MI, USA | Bradley Marks, Michigan State University, East Lansing, MI, USA

02:45 PM **T5-06:** An Alternative to Chemical Sanitation for the Effective Control of *Listeria monocytogenes* Biofilms in the Food Industry
Laurent Delhalle, University of Liege, Liege, Belgium | Romain Briandet, INRAe, Jouy-en-Josas, France | Flore Brion, Realco, Louvain La Neuve, Belgium
Georges Daube, University of Liege, Liege, Belgium | Trond Moretro, NOFIMA, As, Norway

T06 **Developing Scientist Technical Finalists**
Room 5
Convenors: Lynne McLandsborough, Brooke Whitney

01:30 PM **T6-01:** Perceptions of Food Industry Leaders about Industry-to-Industry Confidential Food Safety Data Sharing: An Interview Study
Linda Kalunga, Cornell University, Ithaca, NY, USA | Aaron Adalja, Cornell University, Ithaca, NY, USA | Carrie Alexander, University of California - Davis, Davis, CA, USA
Renata Ivanek, Cornell, Ithaca, NY, USA | Katherine Koebel, Cornell University, Ithaca, NY, USA | Aaron Smith, University of California - Berkeley, Berkeley, CA, USA
Martin Wiedmann, Cornell University, Ithaca, NY, USA

01:45 PM **T6-02:** Rapid *Salmonella* Serovar Classification Using AI-Enabled Hyperspectral Microscopy with Different Data Preprocessing Approaches
MeiLi Papa, Michigan State University, East Lansing, MI, USA | Bosoon Park, USDA, Athens, USA | Jiyoon Yi, Michigan State University, East Lansing, MI, USA

02:00 PM **T6-03:** Comparative Detection of the Decay of Protozoan Parasites in Soil
Kyle McCaughan, University of Delaware, Newark, DE, USA | Kalmia Kniel, University of Delaware, Newark, DE, USA

02:15 PM **T6-04:** Fishing for Answers: A Comparative Study of Zebrafish Embryo and Larvae Models in Human Norovirus Replication
Sahaana Chandran, University of Arkansas, Fayetteville, AR, USA | Kristen Gibson, University of Arkansas, Fayetteville, AR, USA

02:30 PM **T6-05:** Evaluating the Impact of Genomic Analysis Tools on Machine Learning Models for *Vibrio parahaemolyticus*
Shuyi Feng, University of Maryland, College Park, MD, USA | Abani Pradhan, University of Maryland, College Park, MD, USA | Padmini Ramachandran, U.S. FDA, College Park, MD, USA

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S17 **The Tortuous Tangle of Water Regulations for Fresh Produce: Strategies to Navigate**
Grand Ballroom C
Organizers: Donna Clements, Phyllis Posy
Convenors: Don Stoeckel, Donna Clements, Phyllis Posy
Water Safety and Quality PDG
Food Law PDG

03:45 PM Using Buyer Requirements for Water Use Decisions to Achieve a Safe Produce Supply
Steve Strub, Wegmans, Rochester, NY, USA

04:15 PM Researchers Benefit Data Users by Including Regulatory Context of Water Requirements
Michelle Danyluk, University of Florida, Lake Alfred, FL, USA

04:45 PM Cross-Sector Collaboration to Navigate the Labyrinth of Water Requirement
Sonia Salas, Western Growers Association, Irvine, CA, USA

RT09 **20 Years of Consumer Insights: What IFIC's Food & Health Survey Tells Us about Consumers and Food Safety**
Atrium A
Organizers: Anthony Flood, Christine M. Bruhn
Moderator: Anthony Flood
Food Safety Education PDG
International Food Information Council (IFIC)

03:45 PM Christine M. Bruhn, Emerita, University of California-Davis, Davis, CA, USA
Aaron Lavallee, USDA-FSIS-OPACE, Washington, D.C., USA
Kris Sollid, IFIC, Washington, D.C., USA
Pamela Wilger, Post Consumer Brands, Shakopee, MN, USA

S18 **Innovations in the Dairy Cleaning and Sanitation: Safety, Efficiency and Sustainability Impacts**
Atrium C
Organizers: Vijay Juneja, Surabhi Wason
Convenors: Arshpreet Kaur Khattra, Amrit Pal Singh
Dairy Quality and Safety PDG
Food Hygiene and Sanitation PDG

03:45 PM Evolution of Dairy Cleaning and Sanitation: Historical Context and Traditional CIP and COP Techniques
Nathan Mirdamadi, Kerry, Joplin, MO, USA

04:15 PM Key Chemicals and Washes in Dairy Cleaning and Sanitation: Their Roles, Effectiveness and Challenges
Pratibha Chaudhary, Darigold, Issaquah, WA, USA

04:30 PM Various Processing Factors Affecting CIP Efficiency
Aakash Sharma, Dairy Farmers of America, El Dorado Springs, MO, USA

04:45 PM Innovative Strategies to Overcome Traditional Chemical Limitations: Enhancing Safety, Efficiency, and Sustainability in Dairy Cleaning
Shalini Sehgal, Bhaskaracharya College of Applied Sciences, University of Delhi, New Delhi, India

RT10 **Comparing Different Approaches to Identify *Salmonella* Serotypes of Concern in Meat and Poultry**
Room 25ABC
Organizers: Katherine Marshall, Hilary Whitham
Moderator: Kathryn McCullough
Meat and Poultry Safety and Quality PDG
Data Management and Analytics PDG

03:45 PM Katherine Marshall, CDC, Atlanta, GA, USA
Drew Posny, USDA, Fort Pierce, FL, USA
Nikki Shariat, University of Georgia, Athens, GA, USA
Matthew Stasiewicz, University of Illinois, Urbana, IL, USA
Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

S19 **Risk Business in Low- and Middle-Income Countries**
Room 26A
Organizer: Kang Zhou
Convenor: Jeffrey LaJeune
International Food Protection Issues PDG

03:45 PM FAO Work on Risk Ranking in LMICs and One Health for Food Safety Risk Analysis Project
Myoengsin Choi, Codex, Rome, Italy

04:15 PM JEMRA Decision Tool for Water Safety and Quality Use in Food Production and Processing
Mirian Bueno, SENASA, Tegucigalpa, Honduras

04:45 PM Risk Assessment of AMR in the Vegetables Value Chain in South Africa
Lise Korsten, University of Pretoria, Pretoria, South Africa

S20 **AI for Predictive Microbial Risk Assessment in Food Processing**
Room 26BC
Organizers: Vijay Juneja, Subrata Kumar Bag, Luyao Ma
Convenors: Vijay Juneja, Luyao Ma
Modelling and Risk Analysis PDG
Advanced Molecular Analytics PDG

03:45 PM Real-Time Predictive Modeling of Microbial Contamination in Food Processing Using Machine Learning Algorithms
Abhinav Mishra, University of Georgia, Athens, GA, USA

04:15 PM Machine Learning-Based Approach for Microbial Risk Assessment in Food Processing
Subrata Kumar Bag, West Bengal University of Animal & Fishery Sciences, West Bengal, India

04:45 PM Minimizing Food Matrix and Natural Microflora Interferences in Pathogen Detection Using Machine Learning
Luyao Ma, Oregon State University, Corvallis, OR, USA

S21 **Uncharted Territory: The Importance of Genomic Surveys of Foodborne Pathogens from "Uncommon" Environments**
Room 1
Organizers: Caitlin Karolenko, Tim Stubbs
Convenor: Tim Stubbs
Advanced Molecular Analytics PDG
Dairy Quality and Safety PDG
Institute for the Advancement of Food and Nutrition Sciences

03:45 PM Genomic Diversity and Persistence of *Salmonella* in Surface Waters from the Andes Mountains to the Pacific Ocean
Andrea Moreno Switt, Catholic University of Chile, Santiago, Chile

04:15 PM Nationwide Genomic Survey of Foodborne Pathogens Isolated from Households to Understand Prevalence, Persistence and Risk Factors in Consumer Homes
Abigail Snyder, Cornell University, Ithaca, NY, USA

04:45 PM Genomic "Mapping" Surveys of *Listeria* and *Cronobacter* Isolated from Pristine Natural Environments across the USA
Martin Wiedmann, Cornell University, Ithaca, NY, USA

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RT11 **Addressing the Emerging Threat of Psychoactive Compounds in Food**
Room 3
Organizer: Carrie Rigdon
Moderator: Steven Mandernach
Food Chemical Hazards and Food Allergy PDG
Association of Food and Drug Officials

03:45 PM Hillary Booth, Washington State Department of Health, Tumwater, WA, USA
Melanie Firestone, University of Minnesota School of Public Health, Minneapolis, MN, USA
Samantha Lee, Minnesota Regional Poison Center/Hennepin Healthcare, Minneapolis, MN, USA
Jodi Taylor, Ohio Department of Agriculture, Reynoldsburg, OH, USA
Margaret Thelen, Council of State and Territorial Epidemiologists, Atlanta, GA, USA
Sinisa Urban, Maryland Department of Health Laboratories Administration, Baltimore, MD, USA

T07 **Antimicrobials**
Room 4
Convenors: Alexandra Calle, Thomas Taylor

03:45 PM **T7-01:** Mitigating *Listeria* Prevalence in Cold Rooms Using 222-nm Far UVC Radiation
Johana Lilian John Muthiah, University of Georgia, Griffin, GA, USA
Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA | Navneet Grover, Safe Disinfecting Inc., Marina Del Rey, CA, USA
Abhinav Mishra, University of Georgia, Athens, GA, USA

04:00 PM **T7-02:** Targeted Visible-Light-Induced Nano-Sanitizers for Ultrafast Inactivation of Microbes and Their Biofilms
Ahmed El-Moghazy, University of California Riverside, Riverside, CA, USA
Abdullah Awad, University of California, Riverside, CA, USA | Yosra Helmy, University of Kentucky, Lexington, KY, USA | Bibek Lamichhane, University of Kentucky, Lexington, KY, USA

04:15 PM **T7-03:** WITHDRAWN

04:30 PM **T7-04:** Application of Peracetic Acid by Spray or Immersion on Chicken Breasts Induced *Campylobacter* Viable-But-Not-Culturable
Amelia Navarre, Pennsylvania State University, State, PA, USA | Jasna Kovac, Pennsylvania State University, University Park, PA, USA | Fabiola Quintana-Pérez, University of Puerto Rico, Mayagüez, Puerto Rico

04:45 PM **T7-05:** Policies to Reduce Antimicrobial Use in Livestock Have Not Resulted in Consistent Differences in AMR in Beef-Attributed Salmonellosis
Jane Pouzou, EpiX Analytics, Fort Collins, CO, USA | Solenne Costard, EpiX Analytics, Fort Collins, CO, USA | Mason Munro-Ehrlich, EpiX Analytics, Fort Collins, CO, USA
Dan Taylor, EpiX Analytics, Fort Collins, CO, USA | Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

05:00 PM **T7-06:** *Salmonella* Enteritidis with Decreased Susceptibility to Ciprofloxacin
Jovita Haro, USDA-FSIS, Athens, GA, USA | Mary Katherine Crews, USDA-FSIS, Athens, GA, USA | Mustafa Simmons, USDA-FSIS, Washington, D.C., USA
Jamie Wasilenko, USDA-FSIS, Athens, GA, USA

T08 **Developing Scientist Technical Finalists**
Room 5
Convenors: Byron Chaves, Yuan Fang

03:45 PM **T8-01:** Influence of Surface Roughness on Bacterial Spore Survival during Aseptic Package Sterilization with Vapor Hydrogen Peroxide
Manoj Sawale, Purdue University, West Lafayette, IN, USA| Amandeep Singh, Purdue University, West Lafayette, IN, USA | Patnarin Benyathiar, Mahidol University, Kanchanaburi, Thailand | Dharmendra Mishra, Purdue University, West Lafayette, IN, USA | Ferhan Ozadali, Trilliant Food and Nutrition, Little Chute, WI, USA
Sandeep Somvanshi, Purdue University, West Lafayette, IN, USA

04:00 PM **T8-02:** Survival of *Listeria monocytogenes* on D'Anjou Pears Co-inoculated with *Bacillus* Thuringiensis, *Aureobasidium* Pullulans, and *Penicillium* Expansum during Long-Term Cold Storage
Blanca Ruiz-Llacsahuanga, University of Georgia, Athens, GA, USA | Hendrik Bakker, University of Georgia, Griffin, USA | Charles Bency Appolon, University of Georgia, Athens, GA, USA | Autumn Burnett, University of Georgia, Athens, GA, USA
Faith Critzer, University of Georgia, Athens, GA, USA | Justin Daniel, University of Georgia, Athens, GA, USA | Alexis Hamilton, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA | Halle Greenbaum, Athens, GA, USA | Claire Murphy, Washington State University, Prosser, WA, USA | Rawane Raad, University of Georgia, Athens, GA, USA | Laura Strawn, Virginia Tech, Blacksburg, VA, USA

04:15 PM **T8-03:** Transcriptomic Response of *Listeria monocytogenes* Biofilms to Commercially Available Sanitizers
Aysu Deniz, Kansas State University, Manhattan, KS, USA | Faith Critzer, University of Georgia, Athens, GA, USA | Savannah Stewart, Kansas State University, Manhattan, KS | Valentina Trinetta, Kansas State University, Manhattan, KS, USA

04:30 PM **T8-04:** Longitudinal Analysis of Non-Clinical *Listeria monocytogenes* Isolates Obtained between 2000 and 2021 in New York State Reveals Common Clonal Complexes and Their Food-Source Associations
Hilal Samut, Cornell University, Ithaca, NY, USA | Gregory A. Deiulio, New York State Department of Agriculture and Markets, Albany, NY, USA | Alyssa W. Dickey, New York State Department of Agriculture and Markets, Albany, NY, USA
Hannah Hoyt, Wadsworth Center, New York State Department of Health, Albany, NY, USA | Maria Ishida, New York State Department of Agriculture and Markets, NY, NY, USA | Damaris V. Mendez-Vallellanes, Wadsworth Center, New York State Department of Health, Albany, NY, USA | Lisa Mingle, Wadsworth Center, New York State Department of Health, Albany, NY, USA | Kimberlee A. Musser, Wadsworth Center, New York State Department of Health, Albany, NY, USA
Renato Orsi, Cornell University, Ithaca, NY, USA | Brian Sauders, New York State Department of Agriculture & Markets, Selkirk, NY, USA | Martin Wiedmann, Cornell University, Ithaca, NY, USA | Samantha E. Wirth, Wadsworth Center, New York State Department of Health, Albany, NY, USA | William J. Wolfgang, Wadsworth Center, New York State Department of Health, Albany, NY, USA

04:45 PM **T8-05:** Comparison of Methods to Determine Associations between Genetic Variation and Environmental Stress Tolerance in *Listeria monocytogenes*
Hui Zeng, Michigan State University, Okemos, MI, USA| Teresa Bergholz, Michigan State University, East Lansing, MI, USA| Yawei Lin, Michigan State University, East Lansing, MI, USA| Jun Haeng Nam, Michigan State University, East Lansing, MI, USA

05:00 PM **T8-06:** Pan-Genomic Analysis Uncovers the Global Diversity of *Cronobacter sakazakii* across the Food Production Continuum
Mairui Gao, University of Maryland, College Park, MD, USA| Ryan Blaustein, University of Maryland, College Park, MD, USA| Abani Pradhan, University of Maryland, College Park, MD, USA

EVENING EVENTS

5:15 PM – 6:15 PM
Exhibit Hall Reception

5:30 PM – 6:30 PM
Room 5 Southeast Asia Association for Food Protection Meeting
Room 6 Nepalese Association for Food Protection Meeting

5:30 PM – 7:00 PM
Room 4 Indian Association for Food Protection in North America Meeting

TUESDAY, JULY 29

ALL DAY

8:30 a.m. – 6:15 p.m.

Exhibit Hall		Poster Session 2 – Animal and Pet Food Safety, Communication, Outreach and Education, Food Defense, Food Fraud, Food Law and Regulation, Food Processing Technologies, Laboratory and Detection Methods, Pre-Harvest Food Safety, Retail and Food Service Safety, Sanitation and Hygiene, Seafood, and Viruses and Parasites *P2-01 through P2-132 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.* *P2-133 through P2-225 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.*

MORNING

8:30 a.m. – 12:15 p.m.

Grand Ballroom AB	S22	Outbreak Symposium

8:30 a.m. – 10:00 a.m.

Grand Ballroom C	S23	From Data to Decisions: Genomics/Metagenomics in FSQA Programs
Atrium A	S24	Retail, Regulatory, and Food Rescue and Recovery Considerations to Address Global Food Waste
Atrium C	S25	Managing Chemical Hazards in Water Reused in Food Production and Processing
Room 26A	S26	Harmonization for Commercial Sterility Testing
Room 3	S27	End to End (E2E) Physical Hazards Risk Management in Pet Foods for Safety and Health of Companion Animals
Room 26BC	RT12	Efforts to Reduce Food Safety Risks in the Production of Wheat Flour
Room 1	RT13	Empowering Education: Creating Inclusive and Engaging Training Programs
Room 4	T9	Technical Session 9 – Pre-Harvest Food Safety
Room 5	T10	Technical Session 10 – Communication, Outreach and Education
Room 6 & 7	MP	Marketplace
10:00 a.m. – 10:45 a.m.		Break – Refreshments available in the Exhibit Hall *Sponsored by* ALDEN

10:45 a.m. – 12:15 p.m.

Grand Ballroom C	S28	Warming the Frozen Food Supply Chain: Food Safety and Spoilage Implications
Atrium A	S29	Shaping Tomorrow's Table: The Future of Food Safety and Regulation in a Constantly Changing World
Atrium C	S30	Navigating the Path: Dietary Supplements in the Food Safety Regulatory Landscape
Room 26A	S31	The Role of Moonlighting Proteins in the Adaptability and Success of Bacterial Pathogens In Vivo and In Vitro
Room 3	S32	Battling Mold in Low-Moisture Foods
Room 25ABC	RT14	Sustaining Food Safety Improvement Initiatives in Low- and Middle-Income Countries (LMICs): Insights from Research and Practical Engagements
Room 26BC	RT15	Strategies for Managing Foreign Material Incidents in Food Production
Room 1	RT16	Decoding Regulatory and Public Health Uses of WGS: What Food Producers Should Know
Room 4	T11	Technical Session 11 – Pre-Harvest Food Safety, Data Management and Analytics, and Beverages and Acid/Acidified Foods
Room 5	T12	Technical Session 12 – Communication, Outreach and Education
11:45 a.m. – 1:30 p.m.		Lunch available in the Exhibit Hall *Sponsored by* Cargill

AFTERNOON

1:30 p.m. – 5:15 p.m.

Atrium A	S35	Genomic Testing and Its Role in Food Safety Assurance

1:30 p.m. – 3:00 p.m.

Grand Ballroom AB	S33	Advancements in HPAI Research: Updates on Transmission, Dairy Safety, and Risk Assessment
Grand Ballroom C	S34	Surfaces, the Microbiome and Foodborne Pathogens – How the Background Microbiome Influences Pathogen Detection
Atrium C	S36	Navigating Food Safety and Regulatory Considerations for New and Novel Ingredient Approval Pathways for Innovations in Human and Animal Foods
Room 26A	S37	Food Safety in Farmers' Markets and Informal Outdoor Food Markets around the World
Room 3	S38	Mycotoxin Mitigation and Control Measures in Tree Nut Production and Processing
Room 25ABC	RT17	Lingering Hazards: Conquering the Persistent Threats of *Listeria* and *Salmonella* in Deli Meats
Room 26BC	RT18	AI in Action: Transforming Food Safety with Smart Detection, Automation, and Ethical Solutions
Room 1	RT19	Trusted Data Sharing: Collective Learning for Food Safety Insights
Room 5	T13	Technical Session 13 – Laboratory and Detection Methods and Molecular Analytics, Genomics and Microbiome
3:00 p.m. – 3:45 p.m.		Break – Refreshments available in the Exhibit Hall

3:45 p.m. – 5:15 p.m.

Grand Ballroom AB	S39	To Rotate or Not? How Can Microbiome Analysis and Biofilm Tools Broadly Improve Sanitation and Answer This Age-Old Question?
Grand Ballroom C	S40	The Evolving Landscape of Food Ingredient Safety in the United States
Atrium C	S41	International Efforts in Food Virology: The 2023–2024 FAO/WHO JEMRA Expert Consultations for the Codex Committee on Food Hygiene
Room 26A	S42	Validation and State-of-the-Art Methods for Foodborne Parasites
Room 3	S43	The Invisible Threat of Mycotoxins in the Fermentation Industry: A Food Safety Challenge of the 21st Century
Room 25ABC	RT20	Edibles and Drinkables – Food Safety Explorations at the Intersection of Food and Cannabis
Room 26BC	RT21	Combatting Food Fraud: Leveraging Innovation, Traceability, and AI for a Safer Global Food Supply
Room 1	RT22	What Do You Need from Your Validated Microbiological Methods?
Room 4	T14	Technical Session 14 – Retail and Food Service Safety and Food Safety Management Systems
Room 5	T15	Technical Session 15 – Laboratory and Detection Methods

EVENING EVENTS

5:15 p.m. – 6:15 p.m.	Tuesday Exhibit Hall Reception
5:30 p.m. – 6:30 p.m.	
Room 1	African Continental Association for Food Protection Meeting
Room 3	China Association for Food Protection and Chinese Association for Food Protection in North America Meeting
Atrium C	Korea Association for Food Protection Meeting
Room 5	Latin America Group Meeting
6:00 p.m. – 7:00 p.m.	
Room 6	Bangladesh Association for Food Protection in North America
6:30 p.m. – 7:30 p.m.	
Hilton – Hope Ballroom	President's Reception *Sponsored by* MilliporeSigma
7:00 p.m. – 9:00 p.m.	
Rooftop Terrace	Student Mixer

IAFP 2025 PROGRAM

TUESDAY, JULY 29

MORNING

Posters will be on display 8:30 a.m. – 6:15 p.m. (see details beginning on page 62)

S22 **Outbreak Symposium**
Grand Ballroom AB
Organizers: Kari Irvin, Ewen Todd
Convenor: Katherine Marshall
Committee on Control of Foodborne Illness

08:00 AM International Foodborne Outbreaks
Ewen Todd, Ewen Todd Consulting LLC, Okemosm MI, USA

09:00 AM Multistate Outbreak of Multiple Serotypes of *Salmonella* Infections Linked to Cucumbers Grown in Florida
Amanda Conrad, Centers for Disease Control and Prevention, Atlanta, GA, USA
Margaret Kirchner, FDA, Laurel, MD, USA

9:30 AM Multistate Outbreak of *Listeria monocytogenes* Infections Linked to Deli Meats
Amanda Conrad, Centers for Disease Control and Prevention, Atlanta, GA, USA
Shery Shaw, USDA, Ridgeland, WI, USA

10:45 AM Ingredient-Specific Analyses Using the Ingredient Matrix CodeBuilder App Developed by Minnesota Department of Health
Dan Gerlach, Minnesota Department of Health, St. Paul, MN, USA

11:15 AM Multistate Outbreak of Listeriosis Linked to Supplement Shakes
Brooke Whitney, U.S. FDA, Fairfax, VA, USA

S23 **From Data to Decisions: Genomics/Metagenomics in FSQA Programs**
Grand Ballroom C
Organizers: Heather Carleton, Celina To
Convenors: Heather Carleton, Celina To
Advanced Molecular Analytics PDG
Applied Laboratory Methods PDG

08:30 AM Practical Usage of New Generation Sequencing for Food Safety and Food Quality
Andrzej Benkowski, Eurofins Microbiology Laboratories, Madison, WI, USA

09:00 AM WGS: Applications and Apprehensions
John Donaghy, Nestlé SPN., Vevey, Switzerland

09:30 AM NGS-Powered Food Safety: Turning Data into Fast, Actionable Decisions
Ramin Khaksar, Clear Labs, San Carlos, CA, USA

S24 **Retail, Regulatory, and Food Rescue and Recovery Considerations to Address Global Food Waste**
Atrium A
Organizers: Mary Morris-Donaldson, Catherine Nettles Cutter, Lily Yang
Convenor: Jennifer Quinlan
Food Safety Education PDG
Food Law PDG

08:30 AM International View of Food Donation Regulations
Emily Broad Leib, Harvard Law School, Boston, MA, USA

09:00 AM Retail Industry Barriers to Minimizing Food Waste
Jason Wadsworth, Wegmans Food Markets, Inc., Rochester, NY, USA

09:30 AM The Effects of Policy in The Gambia on Food Waste, Rescue, and Distribution of Safe Food
Kunna Faal, Michigan State University, Lansing, MI, USA

S25 **Managing Chemical Hazards in Water Reused in Food Production and Processing**
Atrium C
Organizer: Leon Gorris
Convenor: Leon Gorris
Water Safety and Quality PDG
International Food Protection Issues PDG
Food and Agricultural Organization

08:30 AM Characterization of Chemical Hazards in Alternative Water Sources Used in Food Production
Andrew Pearson, Tonkin + Taylor, Wellington, New Zealand

09:00 AM Regulations around Reuse of Water and Chemical Hazards in Food Industry Settings
Dima Faour-Klingbeil, DFK for Safe Food Environment, Hanover, Germany

09:30 AM Managing Chemical Risks Associated to Reuse of Water in Food Operations
Raquel Medeiros, Nestlé, Vevey, Switzerland

S26 **Harmonization for Commercial Sterility Testing**
Room 26A
Organizer: Jesse Miller
Convenor: Jesse Miller
Applied Laboratory Methods PDG
Dairy Quality and Safety PDG

08:30 AM Food Safety Risk Analysis on Commercial Sterility
Haiping Li, USDA AMS Dairy Programs, Washington, D.C., USA

08:45 AM Current Practices and Shortcomings of Commercial Sterility Tests
Anett Winkler, Cargill, Unterschleißheim, Germany

09:00 AM A Nestlé Perspective on ISO Initiatives for Commercial Sterility
Adrianne Klijn, Société des Produits Nestlé SA, Lausanne, Switzerland

09:15 AM Example of a Kit Validated for Commercial Sterility Testing
Frederic Martinez, Neogen, Ayr, UK

09:30 AM Q&A

RT12 **Efforts to Reduce Food Safety Risks in the Production of Wheat Flour**
Room 26BC
Organizers: Scott Osborne, Molly Miller
Moderator: Molly Miller
Low-Water Activity Foods PDG
North American Milling Association (NAMA)

08:30 AM Scott Osborne, The Mennel Milling Company, Fostoria, OH, USA
Nathan Anderson, U.S. FDA, Bedford Park, IL, USA
Teresa Bergholz, Michigan State University, East Lansing, MI, USA
Luis Sabillon, New Mexico State University, Las Cruces, NM, USA
Kelly Stevens, General Mills, Minneapolis, MN, USA

RT13 **Empowering Education: Creating Inclusive and Engaging Training Programs**
Room 1
Organizers: Christina Allingham, Amanda Kinchla, Shauna Henley
Moderators: Christina Allingham, Shauna Henley
Developing Food Safety Professionals PDG
Food Safety Education PDG
IAFP DEI Council

08:30 AM Ruth Torres Castillo, New Mexico State University, Las Cruces, NM, USA
Tia Glave, Catalyst, LLC, Baltimore, MD, USA
Teresa McCoy, The Ohio State University, Columbus, OH, USA
Joseph Meyer, Kerry, Cross Plains, WI, USA
Angela Walla, Texas Tech University, Lubbock, TX, USA

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S27 **End to End (E2E) Physical Hazards Risk Management in Pet Foods for Safety and Health of Companion Animals**
Room 3
Organizers: Deepa Thiagarajan, Amanda Jones, Michele Sayles, Beilei Ge
Convenors: Deepa Thiagarajan, Michele Sayles
Animal and Pet Food Safety PDG
Physical Hazards and Foreign Material PDG

08:30 AM Striking the Balance between Food Safety and Quality Concerns within an End-to-End Foreign Material Risk Management Program in Pet Food Manufacturing
George Awuah, Mars Petcare, Franklin, TN, USA

09:00 AM Regulatory Considerations for Foreign Hazards in Pet Food
Deepa Thiagarajan, Mars, Mason, MI, USA

09:15 AM Supplier Management of Physical Contaminants in Rendered Animal Products
Josh Hasty, Tyson, Springdale, AR, USA

09:30 AM Cutting into Food Hard Contaminants: A SAHCODA Approach to Reduce Unintentional Food Contaminants and Physical Properties That May Lead to Adverse Health Events
Leslie Hancock, Hills Pet Nutrition, Topeka, KS, USA

T09 **Pre-Harvest Food Safety**
Room 4
Convenors: Kristen Gibson, Veerachandra Yemmireddy

08:30 AM **T9-01:** Efficacy of Eugenol Solutions as Seed Treatments for Controlling *Escherichia coli* O157:H7 and *Salmonella* Typhimurium in Basil (*Ocimum* Basilicum L.) under Controlled Environmental Conditions
Angela Walla, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA
Liliana Avaroma, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA
Catherine Simpson, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, USA | Leslie Thompson, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA

08:45 AM **T9-02:** Bacteriophage for *Escherichia coli* Decontamination in Microgreens
Zhe Zhang, California State Polytechnic University, Pomona, Pomona, CA, USA
Xu Yang, Cal Poly Pomona, Pomona, CA, USA

09:00 AM **T9-03:** Aggregative Soil Sampling Using Drags and Booties Hydrated with Alternative Wetting Agents Shows Promising Recovery of Indicator Organisms across Diverse Soils
Jiaying Wu, University of Illinois Urbana-Champaign, Urbana, IL, USA | Erin Kealey, University of Illinois, Urbana-Champaign, Urbana, IL, USA | **Matthew Stasiewicz**, University of Illinois, Urbana, IL, USA

09:15 AM **T9-04:** Microbiome Variation across Different Urban Farms
Mairui Gao, University of Maryland, College Park, MD, USA | Ryan Blaustein, University of Maryland, College Park, MD, USA| Magaly Toro, University of Maryland, JIFSAN, College Park, MD, USA | Qingyue Zeng, University of Maryland, College Park, MD, USA

09:30 AM **T9-05:** Modeling to Assess Tradeoffs in Sampling Plan Attributes and Rejection Rules for Pre-Harvest Produce Safety
Gabriella Pinto, University of Illinois Urbana-Champaign, Urbana, IL, USA
Cecil Barnett-Neefs, Department of Food Science and Human Nutrition, University of Illinois Urbana-Champaign, Urbana, IL, USA| Matthew Stasiewicz, University of Illinois, Urbana, IL, USA

09:45 AM **T9-06:** *Paenibacillus alvei* TS-15 Efficacy in Reducing *Salmonella* on Tomatoes
Elizabeth Reed, FDA-HFP, College Park, MD, USA| Eric Brown, FDA-Human Foods Program, College Park, MD, USA | Dave Clark, USDA, Beltsville, MD, USA
Anna Maounounen-Laasri, FDA/CFSAN, College Park, MD, USA | Pat Millner, USDA, Beltsville, MD, USA | Padmini Ramachandran, FDA, College Park, MD, USA | Hua Wang, FDA, College Park, MD, USA | Jie Zheng, US FDA, College Park, MD, USA

T10 **Communication, Outreach and Education**
Room 5
Convenors: Alexis Hamilton, Srinivasarao Bandla

08:30 AM **T10-01:** Consumer Understanding of Antibiotic-Resistant Bacteria and Their Occurrence in Food
Ruofen Liao, University of California Davis, Davis, CA, USA | Erin DiCaprio, University of California Davis, Davis, CA, USA | En Huang, University of Arkansas for Medical Sciences, Little Rock, AR, USA | Xinhui Li, University of Wisconsin-La Crosse, La Crosse, WI, USA | Isabella Oliveira Tosta, University of California Davis, Davis, CA, USA | Xu Yang, Cal Poly Pomona, Pomona, CA, USA

08:45 AM **T10-02:** Micro Agricultural Systems: A Comprehensive Overview of Emerging Risks and Safety Practices in Home, On-Farm, Institutional, and Small-Scale Production Systems
Amanda Philyaw Perez, University of Arkansas, Little Rock, AR, USA | Sarah Bakker, University of Arkansas Division of Agriculture Cooperative Extension Service, Little Rock, AR, USA | David Hill, University of Arkansas Division of Agriculture, Little Rock, AR, USA

09:00 AM **T10-03:** Exploring Consumer Attention to Flour Safety Messages on Commercially Available Bake Mix Packages Using Eye-Tracking Technology
Arni Bhunia, Purdue University, West Lafayette, IN, USA | Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA | Elma Kontor-Manu, Purdue University, West Lafayette, IN, USA | Merlyn Suzanne Thomas, L'Oreal, New York, NY, USA

09:15 AM **T10-04:** Perceived Effectiveness of Flour Safety Messages on Flour Packages: An Evaluation of Three Different Framed Messages
Elma Kontor-Manu, Purdue University, West Lafayette, IN, USA | Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA | Andralyn Yao, Purdue University, West Lafayette, IN, USA

09:30 AM **T10-05:** Consumer Response to Alternative Designs for a Revised Safe Handling Instructions Label: Findings from an Experimental Web-Based Survey
Aaron Lavallee, USDA-FSIS-OPACE, Washington, D.C., USA | Andrew Binder, North Carolina State University, Raleigh, NC, USA | Jenna Brophy, RTI International, New Brunswick, NJ, USA | Meredith Carothers, USDA, Food Safety and Inspection Service, Washington, D.C., USA | Sheryl Cates, RTI International, Research Triangle Park, Durham, NC, USA | Benjamin Chapman, North Carolina State University, Raleigh, NC, USA | Esha Shah, RTI International, Research Triangle Park, Durham, NC, USA | Lisa Shelley, North Carolina State University, Raleigh, NC, USA
Ellen Thomas Shumaker, North Carolina State University, Raleigh, NC, USA

09:45 AM **T10-06:** Using Mixed Methods Communication Research to Prevent *Cronobacter* in the U.S.
Marisa Hast, CDC, Atlanta, GA, USA | Sara Bresee, CDC DFWED, Atlanta, GA, USA
Tola Aina, Banyan Communications, Atlanta, GA, USA | Deanna Amarosa, CDC DFWED, Atlanta, GA, USA | Lindsay Lane, CDC, Atlanta, GA, USA | Jason Massey, CDC DFWED, Atlanta, GA, USA | Sharanya Thummalapally, Banyan Communications, Atlanta, GA, USA | Christopher Yoon, CDC DFWED, Atlanta, GA, USA | Laura Whitlock, CDC DFWED, Atlanta, GA, USA

IAFP Marketplace
08:30 AM – 10:00 AM
Room 6/7
Convenor: Lone Jespersen

MP-01: Smartphone-Based Optical Detection: A Superior Alternative to ATP Swab Kits for Bacterial Detection on Food-Contact Surfaces
Yuzhen Zhang, University of Massachusetts Amherst, Amherst, MA, USA | Zili Gao, University of Massachusetts Amherst, Amherst, MA, USA | Lili He, University of Massachusetts Amherst, Amherst, MA, USA | Suraj Pathak, University of Massachusetts Amherst, Amherst, MA, USA

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MP-02: Produce Safety Alliance EPA-Labeled Sanitizers for Produce Webtool
Donna Clements, Produce Safety Alliance, Geneva, NY, USA | Laura Acuna-Maldonado, Cornell University, Geneva, NY, USA | Elizabeth Bihn, Cornell University, Geneva, NY, USA | Davis Blasini, Cornell University/Produce Safety Alliance, Phoenix, AZ, USA | Thomas Saunders, Produce Safety Alliance, Cornell University, Geneva, NY, USA | Don Stoeckel, Produce Safety Alliance, Minneapolis, MN, USA | Mariana Villarreal Silva, Cornell University/Produce Safety Alliance, Murrieta, CA, USA

MP-03: Digital Dairy Hub: An Online Platform Hosting Spoilage Prediction Models for Dairy Products
Chenhao Qian, Cornell, Ithaca, NY, USA | Nicole Martin, Cornell University, Ithaca, NY, USA | Martin Wiedmann, Cornell University, Ithaca, NY, USA

MP-04: The ATCC Genome Portal: The Genomics Database of a 100-Year-Old Culture Collection
Scott Nguyen, American Type Culture Collection, Manassas, VA, USA | John Bagnoli, American Type Culture Collection, Manassas, VA, USA | Briana Benton, Manassas, VA, USA | Ana Fernandes, American Type Culture Collection, Manassas, VA, USA | Jonathan Jacobs, ATCC, Manassas, VA, USA

MP-05: Understanding and Addressing Needs for On-Farm Produce Safety Education in Hydroponics and Aquaponics
Sean Fogarty, University of Vermont, Exeter, NH, USA | Elizabeth Bihn, Cornell University, Geneva, NY, USA | Chris Callahan, University of Vermont, Bennington, VT, USA | Andrew Chamberlin, University of Vermont, Bennington, VT, USA
Laurie George, Produce Safety Alliance, Johnston City, IL, USA | Robson Machado, University of Maine Cooperative Extension, Orono, ME, USA | Elizabeth Newbold, University of Vermont, Bennington, VT, USA | Sujata Sirsat, University of Houston, Houston, TX, USA

MP-06: Produce Safety Posters: Educational Tool for Non-English-Speaking Fresh Produce Growers
Sagar Pokhrel, Kansas State University, Lenexa, KA, USA | Angelina Adjetey, Iowa State University of Science and Technology, Ames, IA, USA | Manreet Bhullar, Kansas State University, Olathe, KS, USA | Melissa Cater, Louisiana State University AgCenter, Baton Rouge, LA, USA | Shannon Coleman, Louisiana State University, Baton Rouge, LA, USA | Londa Nwadike, South Dakota State University, Brookings, SD, USA | Katelynn Stull, Kansas State University, Olathe, KS, USA

MP-07: Freeze-Drying at Home: Research-Based Resources for Extension Educators
Mallika Mahida, University of Georgia, Athens, Georgia, USA | Nadia Abi, Louisiana State University, Baton Rouge, LA, USA | Shannon Coleman, Louisiana State University, Baton Rouge, LA, USA | Mary-Grace Danao, University of Nebraska-Lincoln, Lincoln, NE, USA | Carla Schwan, University of Georgia, Athens, GA, USA

MP-08: Development of Produce Safety Videos for Non-English Speaking Produce Growers in the Midwest
Angelina Adjetey, Iowa State University of Science and Technology, Ames, IA, USA | Manreet Bhullar, Kansas State University, Olathe, KS, USA | Melissa Cater, Louisiana State University AgCenter, Baton Rouge, LA, USA| Shannon Coleman, Louisiana State University, Baton Rouge, LA, USA | Londa Nwadike, South Dakota State University, Brookings, SD, USA | Sagar Pokhrel, Kansas State University, Lenexa, KS, USA

MP-09: Development of an Insightful Food Safety Management Tool
Kathleen Wybourn, DNV, Katy, TX, USA

MP-10: The Metaverse as an Innovative Tool for Supply Chain Control: Opportunities and Challenges for Traceability and Food Safety
Claudio Gallottini, ITA Corporation, Miami, FL, USA| Luca Gallottini, University of Teramo, Teramo, Italy | Chiara Rellini, ESI SRL Partner ITA Group, Roma, Italy
Noemi Trombetti, UK ITA Group Ltd, London, UK

MP-11: Food Safety Culture Toolkit: A Free Resource for Small and Medium-Sized Companies
Vanessa Coffman, Stop Foodborne Illness, Chicago, IL, USA

S28 Warming the Frozen Food Supply Chain: Food Safety and Spoilage Implications

Grand Ballroom C
Organizers: Sanjay Gummalla, Ian Jenson
Convenor: Sanjay Gummalla
International Food Protection Issues PDG
Modelling and Risk Analysis PDG
Frozen Food Foundation

10:45 AM Introductory Remarks: The Relevance of Reducing Greenhouse Gas Emissions in the Frozen Food Supply Chain
Sanjay Gummalla, American Frozen Food Institute, Bethesda, MD, USA

10:50 AM The Standard Set Point of Frozen Storage and Distribution Temperature: Opportunities and Challenges in the Cold Chain
Nigel Thorgrimsson, Ag Food Assist Ltd., Folkestone, UK

11:15 AM Data to Support the Safety and Quality of Frozen Foods at Warmer Temperatures: What We Know and What We Don't
Ian Jenson, FIRST Management, North Parramatta, NS, Australia

11:45 AM The Science of Frozen Food Safety: Pathogens of Concern and Growth Considerations; Microbial Production of Toxins and Harmful Compounds; and Microbial Spoilage
Marcel Zwietering, Wageningen University, Wageningen, Netherlands

S29 Shaping Tomorrow's Table: The Future of Food Safety and Regulation in a Constantly Changing World

Atrium A
Organizer: Bobby Krishna Thulasi
Convenor: Bobby Krishna Thulasi

10:45 AM Navigating the Future: Key Challenges for Food Safety Regulators in an Evolving Global Landscape
Conrad Choiniere, US FDA, College Park, MD, USA

11:15 AM Adapting to Change: One Regulator's Journey to Remain Effective in a Dynamic Operational Environment
Andrew Wilson, Cultivate SA, Brisbane, Australia

11:45 AM Shaping Tomorrow: Some Bold Predictions about the Future of Global Food Safety Regulation and How Industry Can Lead the Way
Cameron Prince, The Acheson Group, Ottawa, ON, Canada

S30 Navigating the Path: Dietary Supplements in the Food Safety Regulatory Landscape

Atrium C
Organizers: Preetha Biswas, Carolyn Montei
Convenor: Preetha Biswas
International Food Protection Issues PDG
Applied Laboratory Methods PDG

10:45 AM Aligning Quality Standards and Testing Rigor for Dietary Supplements
Andrzej Benkowski, Eurofins Microbiology Laboratories, Madison, WI, USA

11:15 AM Regulatory Compliance Framework for Dietary Supplements: Progress and Challenges
Carolyn Montei, Neogen Corporation, Lansing, MI, USA

11:45 AM A Data-Driven Approach to Testing Strategies and Regulatory Considerations for Dietary Supplements
Mike Lowenstein, Q Laboratories, Cincinnati, OH, USA

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RT14 **Sustaining Food Safety Improvement Initiatives in Low- and Middle-Income Countries (LMICs): Insights from Research and Practical Engagements**
Room 25ABC
Organizers: Kebede Amenu, Arie Havelaar, Barbara Kowalcyk
Moderators: Kebede Amenu, Arie Havelaar, Barbara Kowalcyk
International Food Protection Issues PDG
Food Defense PDG

10:45 AM Amare Ayalew, The Partnership for Aflatoxin Control in Africa (PACA), African Union, Addis Ababa, Ethiopia
Ariel Garsow, The Global Alliance for Improved Nutrition, Washington, D.C., USA
Vivian Hoffmann, International Food Policy Research Institute (IFPRI), Washington D.C., USA
Hung Nguyen-Viet, International Livestock Research Institute, Nairobi, Kenya
Haley Oliver, Purdue University, West Lafayette, IN, USA

S31 **The Role of Moonlighting Proteins in the Adaptability and Success of Bacterial Pathogens In Vivo and In Vitro**
Room 26A
Organizers: Arun Bhunia, Byron Brehm-Stecher
Convenor: Arun Bhunia
Applied Laboratory Methods PDG

10:45 AM Moonlighting Proteins: An Overview
Constance Jeffery, University of Illinois-Chicago, Chicago, IL, USA

11:15 AM Metabolic Housekeeping Enzymes in *Listeria monocytogenes* in Epithelial Barrier Crossing, Immune Evasion, and Pathogenesis
Arun Bhunia, Purdue University, West Lafayette, IN, USA

11:45 AM Identification of Phosphoglucomutase as an Enteropathogen Growth Stimulating Factor
Byron Brehm-Stecher, Iowa State University, Ames, IA, USA

RT15 **Strategies for Managing Foreign Material Incidents in Food Production**
Room 26BC
Organizer: Kurt Westmoreland
Moderator: Kurt Westmoreland
Physical Hazards and Foreign Material PDG
Animal and Pet Food Safety PDG

10:45 AM Amanda Fischer, Schreiber Foods, Green Bay, WI, USA
David Rasmussen, Port Salerno, FL, USA
Michele Sayles, Diamond Pet Food, Topeka, KS, USA
Jeff Varcoe, PhD, J.M. Smucker Co., Orrville, OH, USA

RT16 **Decoding Regulatory and Public Health Uses of WGS: What Food Producers Should Know**
Room 1
Organizers: Jessica Chen, Emily Butler, Celina To
Moderator: Marc Allard
Food Safety Assessment, Audit and Inspection PDG
Food Law PDG
Advanced Molecular Analytics PDG

10:45 AM Heather Carleton, Centers for Disease Control and Prevention, Atlanta, GA, USA
Bill Marler, Marler Clark, Bainbridge Island, WA, USA
Mark Moorman, FDA, College Park, MD, USA
Joelle Mosso, Western Growers Association, Irvine, CA, USA
Brendan Ring, Creme Global, Grand Canal Quay, Dublin, Ireland
William K. Shaw, Jr., USDA FSIS, Washington, D.C., USA

S32 **Battling Mold in Low-Moisture Foods**
Room 3
Organizers: Jennifer Acuff, Jyoti Aryal, Karuna Kharel
Convenor: Jennifer Acuff
Low-Water Activity Foods PDG
Animal and Pet Food Safety PDG

10:45 AM Built to Resist: Designing Out Mold Risk in Low-Moisture Foods through Quality-Driven Controls
Yvonne Masters, John B. Sanfilippo & Son. Inc., Chicago, IL, USA

11:15 AM Understanding the Risks and Characterization of Mold Spoilage in Low-Moisture Foods
Emilia Rico-Munoz, BCN Research Laboratories, Inc., Rockford, TN, USA

11:45 AM Sustainable Solutions for Battling Mold in Low-Moisture Pet Foods
Jasmine Kataria, Kerry, Beloit, WI, USA

T11 **Pre-Harvest Food Safety, Data Management and Analytics, and Beverages and Acid/Acidified Foods**
Room 4
Convenors: Maria Hoffmann, Katherine Swanson

10:45 AM **T11-01:** Detection, Persistence and Antimicrobial-Resistance Profiles of Foodborne Pathogens in Nut Orchards with Integrated Grazing Animals
Joanna Rothwell, University of California Davis, Davis, CA, USA | Sejin Cheong, Population Health and Reproduction Pires Lab, Davis, CA | Craig C. Miramontes, University of California Davis, Davis, CA, USA | Richard V. Pereira, University of California Davis, Davis, CA, USA | Alda Pires, Dept. Population Health & Reproduction, University of California Davis School of Veterinary Medicine, Davis, CA, USA
Cory L. Schlesener, UC Davis, Davis, CA, USA | Bart Weimer, School of Veterinary Medicine, University of California Davis, Davis, CA, USA

11:00 AM **T11-02:** Investigating Bioaerosol Transfer of *Escherichia coli* and Other Coliforms from Commercial Poultry Operations in the Southeastern USA Using a Passive Sampling Approach
Halle Greenbaum, Halle Greenbaum, Athens, GA, USA | Zoila Chevez, Auburn University, Auburn, AL, USA | Faith Critzer, University of Georgia, Athens, GA, USA
Victor Cruz, Auburn University, Auburn, AL, USA | Brenda Jovel, Auburn Univerisy, Auburn, AL, USA | Abhinav Mishra, University of Georgia, Athens, GA, USA
Rawane Raad, University of Georgia, Athens, GA, USA | Camila Rodrigues, Auburn University, Auburn, AL, USA | Blanca Ruiz-Llacsahuanga, University of Georgia, Athens, GA, USA | Manpreet Singh, University of Georgia, Athens, GA, USA | Harshavardhan Thippareddi, University of Georgia, Athens, GA, USA | Elisa Tobar, Auburn University, Auburn, AL, USA

11:15 AM **T11-03:** Prevalence, Characterization, and Antimicrobial Resistivity Profiling of *Salmonella* from Pre-Harvest Broiler Chickens
Sandesh Chapagain, University of Maryland Eastern Shor, Princess Anne, MD, USA
Janak Dhakal, University of Maryland Eastern Shor, Princess Anne, MD, USA
Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA
Jennifer R. Timmons, University of Maryland Eastern Shore, Princess Anne, MD, USA | Richard Yaw Otwey, University of Maryland Eastern Shore, Princess Anne, MD, USA

11:30 AM **T11-04:** Temporal and Environmental Drivers for Survival of *Escherichia coli* in Florida Soils Amended with Heat-Treated Poultry Pellets and Composted Poultry Litter
Harsimran Kaur Kapoor, University of Georgia, Athens, GA, USA | Charles Appolon, University of Georgia, Athens, GA, USA | Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA | Patrick Baur, University of Rhode Island, Kingston, RI, USA | Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA | Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA | Abhinav Mishra, University of Georgia, Athens, GA, USA | Aditya Mishra, University of Georgia, Athens, GA, USA | Alda Pires, Dept. Population Health & Reproduction, UC Davis School of Veterinary Medicine, Davis, CA, USA | Keith Schneider, University of Florida, Gainesville, FL, USA | Manan Sharma, USDA-ARS, Beltsville, MD, USA

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11:45 AM **T11-05:** Comparative Analysis of Norovirus-Like Illness Reporting Patterns across Food Service Sectors
Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA
Benjamin Chapman, North Carolina State University, Raleigh, NC, USA
Rebecca Goulter, NC State University, Raleigh, NC, USA | Patrick Quade, Dinesafe, Claymont, DE, USA

12:00 PM **T11-06:** Psychrotrophic Lactic Acid Bacteria as Starter Cultures: Their Efficacy in Controlling Foodborne Pathogens in Kimchi
Daun Kim, World Institute of Kimchi, Gwangju, Republic of Korea | Seulgi Jeong, World Institute of Kimchi, Gwangju, Korea (the Republic of) | Hae Woong Park, World Institute of Kimchi, Gwangju, Republic of Korea

T12 Communication, Outreach and Education

Room 5

Convenors: Claire Murphy, Ellen Thomas Shumaker

10:45 AM **T12-01:** Building a Decision Support System to Address Food Safety and Disparities through a Multi-Method, Interdisciplinary Approach: Salmonellosis in the Poultry Industry as a Use-Case
Kate Trout, University of Missouri-Columbia, Columbia, MO, USA | Mahmoud Almasri, University of Missouri, Columbia, MO, USA | Hoang Hoa, University of Missouri, Columbia, MO, USA | Geoffrey Kangogo, University of Missouri, Columbia, MO, USA Haitao Li, University of Missouri at St. Louis, St. Louis, MO, USA | Amit Morey, Auburn University, Auburn, AL, USA | Paula Penagos, University of Missouri, St. Louis, MO, USA | Timothy Safranski, University of Missouri, Columbia, MO, USA
Thomas Vought, University of Missouri, Columbia, MO, USA

11:00 AM **T12-02:** Food Safety Intervention in Reducing *Escherichia coli* Contamination
Kebede Amenu, International Livestock Research Institute, Addis Ababa, Ethiopia Getachew Dinede, International Livestock Research Institute, Addis Ababa, Ethiopia Gashaw Abate, International Food Policy Research Institute, Washington, D.C., USA | Stacey Duvenage, Natural Resources Institute, University of Greenwich, Chatham, United Kingdom | Delia Grace, Natural Resources Institute, University of Greenwich, Chatham, Kent County, UK | Vivian Hoffmann, International Food Policy Research Institute (IFPRI), Washington, D.C., USA | Abdi Keba, International Livestock Research Institute, Addis Ababa, Ethiopia | Aderajew Mekonnen, Ethiopian Public Health Institute, Addis Ababa, Ethiopia | Hung Nguyen-Viet, International Livestock Research Institute, Nairobi, Kenya

11:15 AM **T12-03:** From Past to Present: The Evolution of Food Safety Management and Food Safety Culture in the California Almond Industry
Han Chen, Purdue University, West Lafayette, IN, USA | Tim Birmingham, Almond Board of California, Modesto, CA, USA | Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA | Linda J. Harris, University of California-Davis, Davis, CA, USA | Guangwei Huang, Almond Board of California, Modesto, CA, USA

11:30 AM **T12-04:** Longitudinal Impact of Food Safety Training on Audit Results
Neal Fredrickson, Cargill, Wayzata, MN, USA

11:45 AM **T12-05:** Food Safety Supervisor Training Prompts Changes in Procedures and Behaviors on Produce Farms
Taylor O'Bannon, University of Florida, Lake Alfred, FL, USA| Michelle Danyluk, University of Florida, Lake Alfred, FL, USA | Morgan Madison, Florida Fruit and Vegetable Association (FFVA), Maitland, FL, USA | Mark Ritenour, University of Florida, Ft. Pierce, FL, USA

12:00 PM **T12-06:** Temperature Variability in Powdered Infant Formula Reconstitution: Implications for Cronobacter Inactivation and Public Health Guidelines
Maria Amalia Beary, Cornell University, Ithaca, NY, USA | Jakob Baker, Cornell University, Ithaca, NY, USA | Sarah E. Daly, Cornell University, Ithaca, NY, USA
Abigail B. Snyder, Cornell University, Ithaca, NY, USA

Tuesday PM

12:30 PM – 1:15 PM IAFP Business Meeting
Room 4

S33 Advancements in HPAI Research: Updates on Transmission, Dairy Safety, and Risk Assessment

Grand Ballroom AB

Organizers: Nathan Anderson, Nicole Martin, Sarah Murphy
Convenors: Stephen Walker, Kristin Butler

Dairy Quality and Safety PDG
Viral and Parasitic Foodborne Disease PDG

01:30 PM Understanding Transmission of H5N1 HPAI in Dairy Cattle; Status of the Disease from Animal Health Standpoint
Mark Lyons, USDA, Riverdale, MD, USA

02:00 PM Thermal Resistance of HPAI in Dairy Products and Survival in Raw Milk Cheese
Diego Diel, Cornell University, Ithaca, NY, USA

02:30 PM Approaches to Rapid Assessment of Risk to Address Emerging Concerns of HPAI in Raw and Pasteurized Milk
Kara Dean, U.S. FDA, College Park, MD, USA

S34 Surfaces, the Microbiome and Foodborne Pathogens – How the Background Microbiome Influences Pathogen Detection

Grand Ballroom C

Organizers: Jesse Miller, Byron Chaves
Convenors: Byron Chaves, Mary Gadola

Advanced Molecular Analytics PDG
Data Management and Analytics PDG

01:30 PM Microbial Guardians: How Microbiota Shape the Fate of *Listeria monocytogenes* in Fruit Packinghouses
Jasna Kovac, The Pennsylvania State University, University Park, PA, USA

02:00 PM Profiling of the Fungal and Bacterial Communities on Surfaces in Cultured Dairy Facilities and the Impact of Season, Location and Service Type
Abigail Snyder, Cornell University, Ithaca, NY, USA

02:30 PM Centriflaken: An Automated Data Analysis Pipeline for Assembly and In Silico Analyses of Foodborne Pathogens from Metagenomic Samples
Narjol Gonzalez-Escalona, FDA/CFSAN/ORS/DMMB, College Park, MD, USA

S35 Genomic Testing and Its Role in Food Safety Assurance

Atrium A

Organizer: Purnendu Vasavada
Convenors: Purnendu Vasavada, Robert Ferguson

Advanced Molecular Analytics PDG
Applied Laboratory Methods PDG

01:30 PM Pathogen Detection and Characterization in Genomic Era
Purnendu Vasavada, University of Wisconsin-River Falls, River Falls, WI, USA

02:00 PM Lessons Learned from FDA's Application of Genomic and Metagenomic Tools: Enhancing Food Safety from Farm to Fork
Eric Brown, FDA-Human Foods Program, College Park, MD, USA

02:30 PM Applying Metagenomic Sequencing to Surveillance for Foodborne Outbreaks
Heather Carleton, U.S. CDC, Atlanta, GA, USA

03:45 PM Practical Applications of Genomic and Metagenomics for Pathogen Diagnostics – What Food Companies Need to Know
Preetha Biswas, Neogen Corporation, Lansing, MI, USA

04:15 PM The Utility of Genomics and Metagenomics for Food Processors – Are They Valuable or Not?
Anett Winkler, Cargill, Unterschleißheim, Germany

04:45 PM Pathogen Control Strategies in the Food Industry Based on Microbiome Analysis
John Donaghy, Nestlé SPN., Vevey, Switzerland

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S36 **Navigating Food Safety and Regulatory Considerations for New and Novel Ingredient Approval Pathways for Innovations in Human and Animal Foods**
Atrium C
Organizers: Deepa Thiagarajan, Li Ma, Aaron Pleitner
Convenors: Deepa Thiagarajan, Joyjit Saha, Lily Yang
Plant-Based Alternative Products Quality and Food Safety PDG
Animal and Pet Food Safety PDG

01:30 PM Food Safety and Toxicology Considerations for Pre-Market and Post-Market Assessment of Ingredients in Human Foods
Jason Dietz, US FDA Human Foods Program CFSAN, College Park, MD, USA

02:00 PM Understanding the Safety and Toxicological Assessments Necessary for Regulatory Compliance with Successful Case Studies of Ingredient Approval in New Product Launches
Aaron Pleitner, Impossible Foods, Piedmont, CA, USA

02:30 PM From Concept to Market: Food Safety and Regulatory Compliance for New Clean Label Ingredients in the Human and Animal Food Sector
Jasmine Kataria, Kerry, Beloit, WI, USA

RT17 **Lingering Hazards: Conquering the Persistent Threats of *Listeria* and *Salmonella* in Deli Meats**
Room 25ABC
Organizers: Carrie Rigdon, Steven Mandernach
Moderator: Shecoya White
Retail and Foodservice PDG
Meat and Poultry Safety and Quality PDG
Association of Food and Drug Officials

01:30 PM Jack Burnett, Vikan, Zionsville, IN, USA
John Jarosh, USDA, Washington, D.C., USA
Sarah Kozak-Weaver, Wegmans, Rochester, NY, USA
Briana Lorenzo, Food Safety & Quality, East Rutherford, NJ, USA
Angela Montalbano, New York State Dept. of Ag & Mkts, Hauppauge, NY, USA
David Nicholas, New York State Department of Health, Albany, NY, USA

S37 **Food Safety in Farmers' Markets and Informal Outdoor Food Markets around the World**
Room 26A
Organizers: Joshua Gurtler, Abdullahi Idris Muhammad
Convenors: Joshua Gurtler, Abdullahi Idris Muhammad
Food Safety Education PDG
Food Safety Culture PDG

01:30 PM Food Safety in West Africa: Why Influencing Informal Market Food Sellers and Consumers Matters More than Policy Perfection
Abdullahi Idris Muhammad, Sultan Qaboos University, Muscat, Oman

02:00 PM Overview and Strategies for Ensuring Food Safety in Farmers' Markets in Brazil
Marciane Magnani, Federal University of Paraíba, Joao Possoa, Paraiba, Brazil
Anderson Sant'Ana, University of Campinas, Campinas, Brazil

02:30 PM Virtual Markets, Real Knowledge: A Game-Based Learning Approach to Food Safety for Farmers' Markets
Kristen Gibson, University of Arkansas, Fayetteville, AR, USA

RT18 **AI in Action: Transforming Food Safety with Smart Detection, Automation, and Ethical Solutions**
Room 26BC
Organizers: Jyoti Aryal, Surabhi Wason, Jeyamkondan Subbiah
Moderators: Jyoti Aryal, Surabhi Wason
Modelling and Risk Analysis PDG
Data Management and Analytics PDG

01:30 PM Jeyamkondan Subbiah, University of Arkansas, Fayetteville, AR, USA
Kaitlyn Casulli, University of Georgia, Athens, GA, USA
Mariem Ellouze, Ferrero, Lausanne 26, Switzerland
Abhinav Mishra, University of Georgia, Athens, GA, USA
Nitin Nitin, University of California, Davis, Davis, CA, USA
Martin Wiedmann, Cornell University, Ithaca, NY, USA

RT19 **Trusted Data Sharing: Collective Learning for Food Safety Insights**
Room 1
Organizers: Nathan Anderson, James Doyle
Moderators: Nathan Anderson, James Doyle
Data Management and Analytics PDG
Food Fraud PDG

01:30 PM De Ann Davis, Western Growers Association, Pacific Grove, CA, USA
Martin Hahn, Hogan Lovells, Washington D.C., USA
Shelby Hollenbeck, FMI, Arlington, VA, USA
Clare Narrod, USDA, Washington D.C., USA
Carrie Rigdon, Association of Food & Drug Officials, St. Paul, MN, USA
Saskia van Ruth, University College Dublin, Dublin, Ireland

S38 **Mycotoxin Mitigation and Control Measures in Tree Nut Production and Processing**
Room 3
Organizer: Guangwei Huang
Convenors: Guangwei Huang, Tim Birmingham

01:30 PM Studies of Fungal Growth and Aflatoxin Production on Different Types of California Almond Kernels
Dawit Gizachew, Purdue University, Hammond, IN, USA

02:00 PM Minimization and Control of Toxigenic Mold and Aflatoxin Development in the Field during Growing and Harvesting
Themis Michailides, University of California, Davis, Davis, CA, USA

02:30 PM Control of Aflatoxin through Processing and Sorting
Tim Birmingham, Almond Board of California, Modesto, CA, USA

T13 **Laboratory and Detection Methods and Molecular Analytics, Genomics and Microbiome**
Room 5
Convenors: Tomi Obe, Todd Frantz

01:30 PM **T13-01:** Evaluation of Tools and Criteria for *Salmonella* Serotype Determination by Nanopore Sequencing
Andrew Morin, Mérieux NutriSciences, Crete, IL, USA | Cameron Parsons, Mérieux NutriSciences, Chicago, IL, USA | Sarita Raengpradub, Mérieux NutriSciences, Pleasanton, CA, USA

01:45 PM **T13-02:** Genomic Evaluation of *Salmonella enterica* ser. Dublin in Cattle and Humans in the USA
Erika Ganda, Pennsylvania State University, University Park, PA, USA
Sophia Kenney, Pennsylvania State University, University Park, PA, USA
Nkuchia M'ikanatha, Pennsylvania State University, University Park, PA, USA

02:00 PM **T13-03:** A New STEC Method in Line with the USDA-FSIS MLG5C.04 to Improve Food Business Operators' Screening of Priority STEC in Beef Meat
Mai-Lan Tran, ANSES, Maisons-Alfort, France | Sabine Delannoy, ANSES, Maisons-Alfort, France | Patrick Fach, ANSES, Maisons-Alfort, Val-de-Marne, France

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02:15 PM **T13-04:** Unlocking Genomics for Food Safety: Advancing WGS Applications and Overcoming Adoption Barriers
Genevieve Sullivan, MARS, Chicago, IL, USA | Jane Wang, Mars Global Food Safety Center, Beijing | Silin Tang, Mars Global Food Safety Center, Beijing

02:30 PM **T13-05:** Parallel Detection of Carbapenem Resistance Genes blaNDM-1 and blaOXA-1 Using a Plasmonic Nano-Biosensor and Field Portable DNA Extraction Method
Evangelyn Alocilja, Michigan State University, East Lansing, MI | Kaily Kao, Michigan State University, East Lansing, MI, USA

02:45 PM **T13-06:** Population Structure Analysis of *Salmonella* Serovar Muenchen to Redefine Geno-Serotyping Using Genome Indexing Approaches
Padmini Ramachandran, FDA, College Park, MD, USA | Christopher Grim, FDA, College Park, MD, USA | Kranti Konganti, FDA, College Park, MD, USA | Abani Pradhan, University of Maryland, College Park, MD, USA | Amanda Windsor, FDA, College Park, MD, USA

S39 To Rotate or Not? How Can Microbiome Analysis and Biofilm Tools Broadly Improve Sanitation and Answer This Age-Old Question?

Grand Ballroom AB
Organizer: David Buckley
Convenors: David Buckley, Kirby Childs
Food Hygiene and Sanitation PDG

03:45 PM Optimizing Your Microbiome Tools for Practical Application in Food Settings
Dana Dittoe, University of Wyoming, Laramie, WY, USA

04:15 PM Impact of Sanitizer Rotation on Biofilms – A Benchtop Look
Eric Moorman, Butterball, LLC, Garner, NC, USA

04:45 PM Exploring Drains: Microbiome Analysis Provides Insight on Sanitation at Retail and Food Manufacturing Establishments
Josie Greve-Peterson, Fortrex, Atlanta, GA, USA

S40 The Evolving Landscape of Food Ingredient Safety in the USA

Grand Ballroom C
Organizer: Paul Hanlon
Convenor: Paul Hanlon
Food Chemical Hazards and Food Allergy PDG

03:45 PM Update on FDA Post-Market Food Chemical Assessment Program
Kirk Arvidson, FDA, Silver Spring, MD, USA

04:15 PM Overview of an Industry Tool to Support Food Chemical Safety Evaluations
Christine Crincoli, Cargill, Wayzata, USA

04:45 PM State Patchwork Approach to Food Chemical Regulation/Legislation
Anthony Pavel, Keller & Heckman LLP, Washington, D.C., USA

S41 International Efforts in Food Virology: The 2023–2024 FAO/WHO JEMRA Expert Consultations for the Codex Committee on Food Hygiene

Atrium C
Organizers: Akio Hasegawa, Kang Zhou, Lee-Ann Jaykus
Convenors: Jeffrey LaJeune, Lee-Ann Jaykus
Viral and Parasitic Foodborne Disease PDG
International Food Protection Issues PDG
FAO-WHO

03:45 PM Food Attribution, Analytical Methods, and Indicator
Miranda de Graaf, Department of Viroscience, Erasmus MC, Rotterdam, The Netherlands

04:15 PM Prevention and Intervention Measures
Lee-Ann Jaykus, NC State University, Raleigh, NC, USA

04:45 PM Revising Guidelines for the Application of General Principles of Food Hygiene: Directions Based on Scientific Principles
Dr. Martin Duplessis, Bureau of Microbial Hazards, Food and Nutrition Directorate, Health Canada, Ottawa, ON, Canada

RT20 Edibles and Drinkables – Food Safety Explorations at the Intersection of Food and Cannabis

Room 25ABC
Organizers: Steven Gendel, Aaron Pleitner, Deepa Thiagarajan
Moderators: Lily Yang, Aaron Pleitner
Plant-Based Alternative Products Quality and Food Safety PDG
Food Chemical Hazards and Food Allergy PDG

03:45 PM Steven Gendel, Gendel Food Safety LLC, Silver Spring, MD, USA
Deepa Thiagarajan, Mars, Mason, MI, USA
Alex Tudor, Bio-Rad, Colorado Springs, CO, USA
Shannon McCoy, Organigram Global, Moncton, NB, Canada

S42 Validation and State-of-the-Art Methods for Foodborne Parasites

Room 26A
Organizers: Sonia Almeria, Monica Santin-Duran
Convenors: Sonia Almeria, Erin Crowley
Viral and Parasitic Foodborne Disease PDG
Advanced Molecular Analytics PDG

03:45 PM Development and Validation of Molecular Methods for the Detection of *Cyclospora, Cryptosporidium* and *Toxoplasma* on Fresh Produce at the CFIA Saskatoon Laboratory
Laura Lalonde, CFIA, Saskatoon, SK, Canada

04:15 PM An Approved AOAC Standard Method Performance Requirements for *Cyclospora cayetanensis*
Erin Crowley, Q Laboratories, Cincinnati, OH, USA

04:45 PM Application of Next Generation Sequencing to Enhance Detection of *Giardia* and *Cryptosporidium* in Fresh Produce
Jenny Maloney, ARS, USDA, Beltsville, MD, USA

RT21 Combatting Food Fraud: Leveraging Innovation, Traceability, and AI for a Safer Global Food Supply

Room 26BC
Organizers: James Doyle, Angela Anandappa
Moderators: James Doyle, Angela Anandappa
Food Fraud PDG
Data Management and Analytics PDG

03:45 PM Fernando Avelleyra, Walmart Stores, Inc., Bentonville, AR, USA
Maryam Blythe, Mars Inc., Moorpark, CA, USA
Sharmeen Khan, OpsSmart Global, Aldie, VA, USA
Vijay Krishna, Glanbia Performance Nutrition, Downers Grove, IL, USA
Cronan McNamara, Creme, Dublin, Ireland
Katie Zammit, Cargill, Saint Clair, MI, USA

RT22 What Do You Need from Your Validated Microbiological Methods?

Room 1
Organizer: David Legan
Moderator: David Legan
Applied Laboratory Methods PDG
Advanced Molecular Analytics PDG

03:45 PM Arpan Bhaghat, Saputo, Dallas, TX, USA
Laura Bleichner, Gold Standard Diagnostics, Freiburg, Baden-Württemberg, Germany
Catharine Carlin, Mérieux NutriSciences, Crete, IL, USA
William K. Shaw, Jr., USDA FSIS, Washington, D.C., USA
Daniele Sohier, Hygiena, Lyon, France

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S43 **The Invisible Threat of Mycotoxins in the Fermentation Industry: A Food Safety Challenge of the 21st Century**
Room 3
Organizers: Vijay Juneja, Shalini Sehgal
Convenors: Vijay Juneja, Shalini Sehgal, Priyanka Gupta
Food Chemical Hazards and Food Allergy PDG
Meat and Poultry Safety and Quality PDG

03:45 PM Mycotoxins in Fermented Foods: Prevalence, Biological Detoxification and Prevention
Lakhvinder Kaur, Manav Rachna International Institute of Research and Studies, Faridabad, Haryana, India

04:15 PM Detection and Control Measures for Mycotoxins in Fermented Foods
Sadhana Ravishankar, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA

04:45 PM Kinetics and Thermodynamic Modeling of the Mycotoxin Decontamination in Foods
Priyanka Gupta, University of Central Oklahoma, Edmond, OK, USA

T14 **Retail and Food Service Safety and Food Safety Management Systems**
Room 4
Convenors: Todd Frantz, Aswathi Soni

03:45 PM **T14-01:** Sanitizers and Antimicrobials: Concentration Testing System Review and Addition of a Tool for System Verification
Richard Walsh, Ecolab, Eagan, MN, USA | Marina Tschida, Ecolab, Eagan, MN, USA

04:00 PM **T14-02:** Behavior of *Salmonella* on Frozen Cantaloupe under Freeze-Thaw Conditions
Monica Osorio-Barahona, Virginia Tech, Blacksburg, VA, USA | Joseph Eifert, Virginia Tech, Blacksburg, VA, USA | Laura Strawn, Virginia Tech, Blacksburg, VA, USA Chrissy Walsky, Virginia Tech, Blacksburg, VA, USA | Daniel Weller, Centers for Disease Control and Prevention, University of Rochester, and Virginia Tech, Decatur, GA, USA

04:15 PM **T14-03:** Consumer Acceptance and Butcher Evaluations of Hypochlorous Acid
Kebede Amenu, International Livestock Research Institute, Addis Ababa, Ethiopia Getachew Dinede, International Livestock Research Institute, Addis Ababa, Ethiopia Stacey Duvenage, Natural Resources Institute, University of Greenwich, Chatham, UK | Delia Grace, Natural Resources Institute, University of Greenwich, Chatham, Kent County, UK | Vivian Hoffmann, International Food Policy Research Institute (IFPRI), Washington, D.C., USA

04:30 PM **T14-04:** FSIS Hazard Identification Process to Address Potential Food Safety Risks
Catherine Rockwell, USDA Food Safety and Inspection Service, Washington, D.C., USA | Doug Noveroske, USDA Food Safety and Inspection Service, Washington, D.C., USA

04:45 PM **T14-05:** Business and Public Health Impacts of a Food Safety Rating Program among Pork Vendors in Vietnam
Vivian Hoffmann, International Food Policy Research Institute, Ottawa, ON, Canada Kate Ambler, IFPRI, Washington, D.C., USA | Sinh Dang-Xuan, ILRI, Hanoi, Vietnam Trang Le-Thi-Huyen, ILRI, Hanoi, Vietnam | Mike Murphy, IFPRI, Washington, D.C., USA Duy Nguyen-Quang, IEHSD, Hanoi, Vietnam | Hung Nguyen-Viet, International Livestock Research Institute, Nairobi, Kenya | Huong Pham-Thi, MDRI, Hanoi, Vietnam | Fred Unger, ILRI, Hanoi, Vietnam

T15 **Laboratory and Detection Methods**
Room 5
Convenors: Jessica Danzeisen, Andrzej Benkowski

03:45 PM **T15-01:** Impedance Based Microfluidic Biosensor for Accurate and Quantitative Detection of *Salmonella* in Raw Turkey Products
Mahmoud Almasri, University of Missouri, Columbia, MO, USA | Mohammed Almalaysha, University of Missouri, Columbia, MO, USA | Keara Allen, University of Missouri, Columbia, MO, USA | Kamran Bashir Taas, University of Missouri, Columbia, MO, USA | Anna Carlson, Cargill Research & Development, Valley Center, KS, USA Amit Morey, Auburn University, Auburn, AL, USA | William Sanders, Cargill, Inc., Wichita, KS, USA | Kate Trout, University of Missouri, Columbia, MO, USA Shuping Zhang, University of Missouri, Columbia, MO, USA

04:00 PM **T15-02:** Quick Detection of Biofilm Species and Cell Counts by Sensor Array
Yi Wang, University of Connecticut, Storrs, CT, USA | Yihang Feng, University of Connecticut, Storrs, CT, USA | Yangchao Luo, University of Connecticut, Storrs, CT, USA

04:15 PM **T15-03:** Single-Cell Identification of Viable but Nonculturable *Campylobacter jejuni*
Kaidi Wang, University of Saskatchewan, Saskatoon, SK, Canada
Pierre-Luc Longchamps, McGill University, Sainte-Anne-de-Bellevue, QC, Canada
Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada

04:30 PM **T15-04:** Enhancing AI Microscopy for Foodborne Bacterial Classification via Adversarial Domain Adaptation across Optical and Biological Variability
Jiyoon Yi, Michigan State University, East Lansing, MI, USA
Siddhartha Bhattacharya, Michigan State University, East Lansing, MI, USA
Mason Earles, University of California, Davis, Davis, CA, USA | Luyao Ma, Oregon State University, Corvallis, OR, USA | Nitin Nitin, Department of Food Science and Technology, University of California, Davis, Davis, CA, USA | Aarham Wasit, Michigan State University, East Lansing, MI, USA

04:45 PM **T15-05:** Solvent-Free Screening of Microbial Contamination in Foods Using VOCs
Snehal Jadhav, Deakin University, Melbourne, VIC, Australia | Sherlyn Ardison, Deakin University, Melbourne, VIC, Australia | Daniel Dias, Deakin University, Melbourne, VIC, Australia | Valarie Heng, University of Tasmania, Nunawading, Australia | Yada Nolvachai, Deakin University, Melbourne, VIC, Australia
Kaylie Peters, Deakin University, Melbourne, VIC, Australia | Robert Shellie, UTAS, Hobart, TAS, Australia | Maiken Ueland, UTS, Sydney, NSW, Australia

05:00 PM **T15-06:** Reliable Detection and Enumeration of Contaminants in Probiotics
Adrianne Klijn, Societe Des Produits Nestlé SA, Lausanne, Switzerland
Amparo De Benito, Valencia, Spain | Benjamin Diep, Nestlé, Lausanne, France

EVENING EVENTS

5:15 PM – 6:15 PM
Exhibit Hall Reception

5:30 PM – 6:30 PM
Room 1 African Continental Association for Food Protection Meeting
Room 3 China Association for Food Protection and Chinese Association for Food Protection in North America Meeting
Atrium C Korea Association for Food Protection Meeting
Room 5 Latin America Group Meeting

6:00 PM – 7:00 PM
Room 6 Bangladesh Association for Food Protection in North America

6:30 PM – 7:30 PM
Hilton – Hope Ballroom President's Reception

7:00 PM – 9:00 PM
Rooftop Terrace Student Mixer

WEDNESDAY, JULY 30

ALL DAY

8:30 a.m. – 3:00 p.m.

Exhibit Hall		Poster Session 3 – Beverages and Acid/Acidified Foods, Epidemiology, Food Safety Systems, Food Toxicology, General Microbiology, Meat, Poultry and Eggs, Modeling and Risk Assessment, Molecular Analytics, Genomics and Microbiome, Plant-Based Alternative Products *P3-01 through P3-115 – Authors present 10:00 a.m. – 11:00 a.m. and 12:00 p.m. – 1:00 p.m.* *P3-116 through P3-216 – Authors present 11:00 a.m. – 1:00 p.m.*

MORNING

8:30 a.m. – 10:00 a.m.

Atrium A	S44	Promises and Challenges of Implementing Natural Antimicrobials from Farm to Fork
Atrium C	S45	Tracking Sampling and Testing Strategies during Live Production and Pre-Harvest for *Salmonella* Reduction
Room 25ABC	S46	Beyond Slime: Why Dry Surface Biofilms Need a New Approach to Food Hygiene
Room 1	S47	Allergen Management in Hospitality Venues
Room 3	S48	What's the Hold Up? Microbiological Risks Associated with Holding of Product Prior to Further Processing
Room 4	S49	Fragile Yet Devious; What Makes *Campylobacter* So Persistent?
Grand Ballroom C	RT23	A Good Fit – Leveraging EMP into Retail and Food Service Operations
Room 5	T16	Technical Session 16 – Produce and Water
Room 6	T17	Technical Session 17 – General Microbiology

10:00 a.m. – 10:45 a.m. Break – Refreshments available in the Poster Session Area

10:45 a.m. – 12:15 p.m.

Atrium A	S50	Advancing Food Safety Education Through Employee Engagement Initiatives
Room 25ABC	S51	Best Practices for Food Safety Communication: Recommendations and Realities
Room 26A	S52	Molecular Methods for the Detection of Spoilage Microorganisms *Sponsored by Thermo Fisher Scientific*
Room 1	S53	Smoking for Food Safety – Clean Labeling and Integrated Strategies
Room 3	S54	Scientific Progress Toward Intelligent Design of Anti-Noroviral Disinfection Products and Processes
Room 4	S55	Spores…Let's "B. cereus"
Room 26BC	RT24	Microbiome and Metagenomic Data are Cheap and Detailed: What Now?
Room 5	T18	Technical Session 18 – Food Safety Systems
Room 6	T19	Technical Session 19 – Food Law and Regulation and General Microbiology

11:45 a.m. – 1:30 p.m. Lunch available in Exhibit Hall B

AFTERNOON

1:30 p.m. – 3:30 p.m.

	S56	WITHDRAWN
Atrium A	S57	Standing Out in a Crowd: Why Some *Salmonella* Strains Break through to Cause Illness
Atrium C	S58	Define "Lot"? Understanding New Regulatory Standards for *Salmonella* Contamination in Poultry Parts and Strategies for Ensuring Final Product Safety
Room 25ABC	S59	Food Allergies in the American Household – A Roundtable Discussion with Expert Perspectives from the Food Allergy Advocacy, Government, and Medical Communities
Room 26A	S60	Novel Foods, Safety, Shelf Life, and Rapid Methods – Approaches to Test Method Design, Validation and Application in Alternative Protein-Based Products
Room 26BC	S61	Can Exceptional Lethality during Thermal Processing Act as a Preventive Control?
Room 1	S62	Integrating Multidisciplinary Produce Safety Research to Inform Regulation
Room 3	S63	LFFM: Five Years of Success in Strengthening Food Safety
Room 4	S64	The Frontlines of Food Safety Education: Challenges and Opportunities
Room 5	T20	Technical Session 20 – Food Processing Technologies
Room 6	T21	Technical Session 21 – Modeling and Risk Assessment

3:30 p.m. – 4:00 p.m. Refreshments available in Grand Ballroom Foyer

4:00 p.m. – 4:45 p.m.
Grand Ballroom AB

JOHN H. SILLIKER LECTURE
Of Poultry, Pathogens, and People: Perennial Passions
Julian Cox, Faculty of Engineering
UNSW Sydney, New South Wales, Australia

EVENING EVENTS

6:00 p.m. – 7:00 p.m.
Grand Ballroom Foyer Awards Banquet Reception

7:00 p.m. – 10:00 p.m.
Grand Ballroom BC Awards Banquet

IAFP 2025 PROGRAM

WEDNESDAY, JULY 30

MORNING

Posters will be on display 8:30 a.m. – 6:15 p.m. (see details beginning on page 66)

RT23 **A Good Fit – Leveraging EMP into Retail and Food Service Operations**
Grand Ballroom C
Organizer: Natalie Seymour
Moderator: David Buckley
Retail and Foodservice PDG
Food Hygiene and Sanitation PDG

08:30 AM Thomas Ford, Compass Group, Greensboro, NC, USA
Michelle Leger, Lunds & Byerlys, Eden Prairie, MN, USA
Sarah Morrison, IKEA North America Services, Boothwyn, PA, USA
Donald Schaffner, Rutgers University, New Brunswick, NJ, USA
Viktoria Wagner, Ecolab Europe, Monheim, Germany

S44 **Promises and Challenges of Implementing Natural Antimicrobials from Farm to Fork**
Atrium A
Organizers: Subash Shrestha, Hany Anany
Convenors: Subash Shrestha, Hany Anany
Meat and Poultry Safety and Quality PDG

08:30 AM Bacteriocins for Biopreservation of Fish Products: Proof of Efficacy and Approval
Ismail Fliss, Laval University, Quebec City, QC, Canada | Alain Thibodeau, Aliotech/Grizzly, St-Augustin-de-Desmaures, QC, Canada

09:00 AM From Farm to Fork: Potential and Challenges of Phage Application as Natural Antimicrobials
Hany Anany, Agriculture & Agri-Food Canada, Guelph, ON, Canada | Kirsten Wessels, PhageGuard, Wageningen, Netherlands

09:30 AM Establishing Expectations for Label-Friendly Antimicrobials
Jerry Erdmann, IFF, New Century, KS, USA

S45: **Tracking Sampling and Testing Strategies during Live Production and Pre-Harvest for *Salmonella* Reduction**
Atrium C
Organizers: Preetha Biswas, Peggy Cook
Convenors: Preetha Biswas, Peggy Cook
Pre Harvest Food Safety PDG
Meat and Poultry Safety and Quality PDG

08:30 AM Optimizing Pre-Harvest *Salmonella* Monitoring to Develop a Program for Logistical Slaughter
Nikki Shariat, University of Georgia, Athens, GA, USA

09:00 AM *Salmonella* Detection Rates Shift throughout the Turkey Supply Chain and are Likely Influenced by Production Practices
Jessie Vipham, Kansas State University, Manhattan, KS, USA

09:30 AM Ceca May Not Serve as an Adequate Process-Level Predictive Sample for *Salmonella enterica* in Ground Turkey
Anna Carlson, Cargill Research & Development, Valley Center, KS, US

S46 **Beyond Slime: Why Dry Surface Biofilms Need a New Approach to Food Hygiene**
Room 25ABC
Organizers: Juan Goncalves, David Buckley
Convenor: Juan Goncalves
Food Hygiene and Sanitation PDG
Retail and Foodservice PDG

08:30 AM Advancing Dry Surface Biofilm Research: Innovative Analytical Methods and Paradigm Shifts in Sanitation Practices
Jean-Yves Maillard, Cardiff University, Cardiff, Wales, UK

09:00 AM Understanding Multispecies Interactions in Dry Surface Biofilms: Connecting Food Manufacturing and Retail Foodservice for Enhanced Practices and Knowledge Transfer
Haley Oliver, Purdue University, West Lafayette, IN, USA

09:30 AM Unveiling the Silent Menace: Exploring Dry Surface Biofilms from the Perspectives of Food Establishment Managers, Consumers, Sanitation Partners, and Health Inspectors
Melissa Vaccaro, National Environmental Health Association (NEHA), Denver, CO, USA

S47 **Allergen Management in Hospitality Venues**
Room 1
Organizers: Steve Taylor, Betsy Craig
Convenors: Amy Wise, Betsy Craig
Food Safety Assessment, Audit and Inspection PDG

08:30 AM Consequences of Poor Allergen Management in Hospitality Settings
Robert Earl, FARE, Arlington, VA, USA

09:00 AM Allergen Training in Foodservice and Other Hospitality Settings
Betsy Craig, MenuTrinfo, LLC, Fort Collins, CO, USA

09:30 AM Practical Experiences in Implementation of Allergen Management in Hospitality Settings
Douglas Davis, Marriott, Bethesda, MD, USA

S48 **What's the Hold Up? Microbiological Risks Associated with Holding of Product Prior to Further Processing**
Room 3
Organizer: Wilfredo Ocasio
Convenor: Wilfredo Ocasio
Beverages and Acid/Acidified Foods PDG
Beverages and Acid/Acidified Foods PDG

08:30 AM Keep It Cool? Controlled Storage Conditions of Liquid Intermediates Prior to Thermal Processing
Ron Van Santen, Danone, Hoofddorp, Netherlands

09:00 AM "Hot to Go" Microbial Risks Related to Improper Batching Prior to Thermal Processing
Martha Kimber, Eurofins, Livermore, CA, USA

09:30 AM Quality Impact of Improper Holding of High Acid Beverages Prior to Thermal Processing
George Kwabena Afari, Coca-Cola, Atlanta, GA, USA

S49 **Fragile Yet Devious; What Makes *Campylobacter* So Persistent?**
Room 4
Organizer: Heidy Den Besten
Convenor: Juan DeVillena
Modelling and Risk Analysis PDG
Meat and Poultry Safety and Quality PDG

08:30 AM Impact of Fucose and Glucose on Growth, Metabolism and Virulence of *Campylobacter*
Heidy Den Besten, Wageningen University, Wageningen, Netherlands

09:00 AM Persistence of *Campylobacter* in the Slaughterhouse and Its Impact on Public Health Risk
Maarten Nauta, Statens Serum Institut, Copenhagen, Denmark

09:30 AM *Campylobacter* Control in Chilling and Post-Chilling Operations during Poultry Processing
Manpreet Singh, The University of Georgia, Athens, GA, USA

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T16 **Produce and Water**
Room 5
Convenors: Phyllis Posy, Don Stoeckel

08:30 AM **T16-01:** Comprehensive Analyses of Carbapenem-Resistant and ESBL-Producing Bacteria in Fresh Vegetables and Their Resistome
Xinhui Li, University of Wisconsin-La Crosse, La Crosse, WI, USA | En Huang, University of Arkansas for Medical Sciences, Little Rock, AR, USA | Erin DiCaprio, University of California, Davis, Davis, CA, USA | Sun Hee Moon, University of Arkansas for Medical Sciences, Little Rock, AR, USA | Se-Ran Jun, University of Arkansas for Medical Sciences, Little Rock, AR, USA | Jinkyung Kim, California Polytechnic State University Pomona, Pomona, CA, USA | Elizabeth Leighton, Organic Valley, Cashton, WI, USA | Xu Yang, Cal Poly Pomona, Pomona, CA, USA

08:45 AM **T16-02:** Evaluating Effects of Beneficial Root-Associated Bacteria on Lettuce Stomatal Conductance and *Salmonella* Association
Diksha Klair, University of Maryland, College Park, MD, USA | Shirley Micallef, University of Maryland, College Park, MD, USA

09:00 AM **T16-03:** Persistence of Internalized Enteropathogens in Baby Leaf Kale as Influenced by Pre-Harvest Water Stress and Post-Harvest Storage Conditions
Claire Hudson, University of Maryland, College Park, MD, USA | Shirley Micallef, University of Maryland, College Park, MD, USA | Guy Kilpatric, University of Maryland, Terp Farm, Upper Marlboro, MD, USA | Diksha Klair, University of Maryland, College Park, MD, USA | Donald Murphy, University of Maryland, Upper Marlboro Facility, Upper Marlboro, MD, USA

09:15 AM **T16-04:** Impact of Wastewater from Industrialized Agriculture on Nutrients Levels in Water Resources in Central North Carolina
Jude Dilioha, East Carolina University, Greenville, NC, USA

09:30 AM **T16-05:** Efficacy of Peracetic Acid and Chlorine in Managing *Salmonella* Biofilms in a Simulated Irrigation System
Rawane Raad, University of Georgia, Athens, GA, USA | Charles Bency Appolon, University of Georgia, Athens, GA, USA | Ethan Caspary Poucher, University of Georgia, Athens, GA, USA | Faith Critzer, University of Georgia, Athens, GA, USA Justin Daniel, University of Georgia, Athens, GA, USA | Mia Gale, University of Georgia, Athens, GA, USA | Halle Greenbaum, Athens, GA, USA | Blanca Ruiz, University of Georgia, Athens, GA, USA | Ruben Vinueza, University of Georgia, Athens, GA, USA | Elizabeth Ward, University of Georgia, Athens, GA, USA

09:45 AM **T16-06:** *Escherichia coli* and *Salmonella* from Irrigation Ponds: Typing and Antimicrobial Resistance
James Widmer, University of Georgia, Athens, GA, USA | Hendrik Den Bakker, Center for Food Safety, University of Georgia, Griffin, GA, USA | Laurel Dunn, University of Georgia, Athens, GA, USA | Amy Mann, University of Georgia, Griffin, GA, USA | Yakov Pachepsky, USDA-ARS, Beltsville, MD, USA | Manan Sharma, USDA-ARS, Beltsville, MD, USA | Matthew Stocker, USDA-ARS, Beltsville, MD, USA

T17 **General Microbiology**
Room 6
Convenors: Magaly Toro, Jiyoon Yi

08:30 AM **T17-01:** Microbial Assessment of Commercially Available Seamoss Products
Ann Vegdahl, Cornell University, Geneva, NY, USA | Gerard Humiston, Cornell University, Geneva, NY, USA | Aytana Rejuso, Cornell University, Ithaca, NY, USA Randy Worobo, Cornell University, Geneva, NY, USA

08:45 AM **T17-02:** Characterization of Biofilms Produced by *Salmonella* spp. in Hydroponic Leafy Green Nutrient Solution
Abigail Aba Mensah, The Ohio State University, Wooster, OH, USA | Sanja Ilic, The Ohio State University, Columbus, OH, USA | Melanie L. Ivey, The Ohio State University, Wooster, OH, USA

09:00 AM **T17-03:** Genomic Bases of the Ecological Success of Motile and Non-Motile *Listeria*
Ying-Xian Goh, Virginia Tech, Blacksburg, VA, USA | Shannon Hepp, Virginia Tech, Blacksburg, VA, USA | Jingqiu Liao, Virginia Tech, Blacksburg, VA, USA

09:15 AM **T17-04:** Cytotoxicity, Transcription, and Stability of Virulence Factors Produced by Psychrotolerant *Bacillus cereus* Group Isolates
Tyler Chandross-Cohen, The Pennsylvania State University, State College, PA, USA Carlos Centeno, University of Puerto Rico, Aguadilla, PR | Kayla Kimble, The Pennsylvania State University, University Park, PA, USA | Jasna Kovac, The Pennsylvania State University, University Park, PA | Brian Praul, The Pennsylvania State University, University Park, PA, USA | Cassidy Prince, The Pennsylvania State University, University Park, PA, USA | Erin Readinger, The Pennsylvania State University, University Park, PA, USA | Mackenna Yount, The Pennsylvania State University, University Park, PA, USA

09:30 AM **T17-05:** Heavy Metal Tolerance in Background Microorganisms Associated with Food Processing Environments
Dinithi De Silva, University of Nebraska-Lincoln, Lincoln, NE, USA | Byron Chaves, University of Nebraska-Lincoln, Lincoln, NE, USA

09:45 AM **T17-06:** Synergistic Effects of Elevated Hydrostatic Pressure, Malic Acid, and Citricidal against Wild-Type, Rifampicin-Resistant, and Pressure-Stressed O157 and Non-O157 Shiga Toxin-Producing *Escherichia coli*
Niraj Ghimire, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Aliyar Fouladkhah, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Ranju Kafle, Tennessee State University, Nashville, TN, USA | Junice Sibley, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA

S50 **Advancing Food Safety Education through Employee Engagement Initiatives**
Atrium A
Organizers: Aaron Lavallee, Lily Yang
Convenors: Aaron Lavallee, Lily Yang
Food Safety Education PDG
Food Safety Culture PDG

10:45 AM Buying into the Mission, One Employee at a Time
Aaron Lavallee, USDA-FSIS-OPACE, Washington, D.C., USA

11:15 AM Tiny Bellies, Big Responsibility: Building a Food Safety Culture through Emotional Engagement
Janeen Richey, Beech-Nut Nutrition, Amsterdam, NY, USA

11:45 AM How Food Safety Culture Shapes Our World; Observations from a Real-Life Survey Conducted at Leprino Foods Company
Vijay Vankar, Leprino Foods, Denver, CO, USA

S51 **Best Practices for Food Safety Communication: Recommendations and Realities**
Room 25ABC
Organizers: William Hallman, Jeffrey LeJeune
Convenor: William Hallman
Food Safety Education PDG
Committee on Control of Foodborne Illness

10:45 AM Food Safety Risk Communication: Best Practices and Empirical Evidence from an Academic Perspective
Cara Cuite, Rutgers University, New Brunswick, NJ, USA

11:15 AM Food Safety Risk Communication: Best Practices from an Industry Perspective
Amy Philpott, Philpott PR Solutions, LLC, Washington, D.C., USA

11:45 AM Food Safety Risk Communication: Best Practices from a Government Perspective

WEDNESDAY

S52 **Molecular Methods for the Detection of Spoilage Microorganisms**
Room 26A
Organizers: Mu Ye, Joelle Salazar
Convenors: Mu Ye, Katrina Counihan
Advanced Molecular Analytics PDG
Applied Laboratory Methods PDG
Sponsored by Thermo Fisher Scientific

10:45 AM Spoilage Organism Identification Using Third Generation Sequencing
Catherine Stewart, ConAgra, Omaha, NE, USA

11:15 AM Casting a Wide Net; Spoilage by Bacteria and Fungi in Foods and Implications for Food Safety
Hendrik Den Bakker, Center for Food Safety, University of Georgia, Griffin, GA, USA

11:45 AM The Challenges of Spoilage – How Molecular Techniques Can Help
Sarita Raengpradub, Mérieux NutriSciences, Pleasanton, CA, USA

RT24 **Microbiome and Metagenomic Data are Cheap and Detailed: What Now?**
Room 26BC
Organizers: David Legan, M. Laura Rolon
Moderators: David Legan, Isabel Walls
Applied Laboratory Methods PDG
Advanced Molecular Analytics PDG

10:45 AM Jerome Combrisson, MARS, Aimargues, France
John Donaghy, Nestlé SPN., Vevey, Switzerland
Karen Jarvis, U.S. FDA, Laurel, MD, USA
Joelle Mosso, Western Growers Association, Irvine, CA, USA
Michele Sayles, Diamond Pet Food, Topeka, KS, USA
M. Laura Rolon, California Polytechnic State University, San Luis Obispo, CA, USA

S53 **Smoking for Food Safety – Clean Labeling and Integrated Strategies**
Room 1
Organizers: Lihan Huang, Jyoti Aryal
Convenor: Joshua Gurtler
Seafood Safety and Quality PDG
Meat and Poultry Safety and Quality PDG

10:45 AM Regulatory Overview on Smoke Technology: History and Advancements
Joshua Gurtler, USDA-ARS, Wyndmoor, PA, USA

11:15 AM Functional Benefits of Liquid and Dry Smoke: Enhancing Food Safety and Quality in Meat, Poultry, and Seafood
Surabhi Wason, Kerry, Beloit, WI, USA

11:45 AM Innovative Packaging and Antimicrobial Strategies for Seafood and Meat Preservation
Evelyn Watts, LSU AgCenter & Louisiana Sea Grant, Baton Rouge, LA, USA

S54 **Scientific Progress toward Intelligent Design of Anti-Noroviral Disinfection Products and Processes**
Room 3
Organizer: Lee-Ann Jaykus
Convenors: David Buckley, Juan Goncalves
Viral and Parasitic Foodborne Disease PDG
Food Hygiene and Sanitation PDG

10:45 AM Why are Human Noroviruses So Resistant to Disinfection?
Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA

11:15 AM Is Formulation Important in Disinfection: YES!
James Arbogast, JW Arbogast Advanced Science Consulting LLC, Akron, OH, USA

11:45 AM Emerging Anti-Norovirus Treatments and Their Proposed Modes of Action
Lee-Ann Jaykus, NC State University, Raleigh, NC, USA

S55 **Spores...Let's "B. cereus"**
Room 4
Organizers: Caitlin Karolenko, Polly Courtney, Kathleen Glass
Convenors: Polly Courtney, Kathleen Glass
Plant-Based Alternative Products Quality and Food Safety PDG
Institute for the Advancement of Food and Nutrition Sciences

10:45 AM Why Should *Bacillus cereus* Be a Priority in a Food Safety Plan?
Jasna Kovac, The Pennsylvania State University, University Park, PA, USA

11:15 AM Recent Improvements in Methodology for Detection of Cells and Toxins
Stephanie Smith, Washington State University, Pullman, WA, USA

11:45 AM Control Measures Needed during Processing and Storage
Kristin Schill, Food Research Institute/University of Wisconsin-Madison, Madison, WI, USA

T18 **Food Safety Systems**
Room 5
Convenors: Sarah Smith-Simpson, Benjamin Miller

10:45 AM **T18-01:** Natural Occurrence of Fumonisins in Pre-Harvest and Post-Harvest Maize in South Africa: A Maize Trust Project
Oluwasola Adelusi, University of Johannesburg, Johannesburg, South Africa
Sarah De Sager, Ghent University, Ghent, Flander, Belgium | Kulsum Kondiah, University of Johannesburg, Johannesburg, Gauteng, South Africa
Patrick B. Njobeh, University of Johannesburg, Johannesburg, Gauteng, South Africa | Nnamdi Nwulu, University of Johannesburg, Johannesburg, Gauteng, South Africa

11:00 AM **T18-02:** Evaluation of Air Plasma and Plasma-Activated Chemicals for Microbial Reduction on Raw Chicken Breast Fillets
Katherine Sierra, Auburn University, Auburn, AL, USA | Micah T. Black, Auburn University, Auburn, AL, USA | Amit Morey, Auburn University, Auburn, AL, USA

11:15 AM **T18-03:** UV-C Treatment for the Inactivation of *Listeria* Species from the Surface of Gala Apple
Justin Gilleland, Oregon State University, Corvallis, OR, USA | Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA | Qingyang Wang, Oregon State University, Corvallis, OR, USA

11:30 AM **T18-04:** Green Tea Alginate Coating Inactivates *Listeria monocytogenes* on Shiitake
Marciane Magnani, Federal University of Paraíba, João Possoa, Paraiba, Brazil Marcos dos Santos Lima, Federal Institute of Petrolina, Petrolina, Pernambuco, Brazil | Bruna Heloiza Gomes da Silva, Federal University of Paraíba, João Pessoa, Paraíba, Brazil | Louise Iara Gomes de Oliveira, Federal University of Paraíba, João Pessoa, Paraíba, Brazil | Jade Morais Alves, Federal University of Paraíba, João Pessoa, Paraíba, Brazil

11:45 AM **T18-05:** Plant-Based Printable Edible Ink for Food Safety and Sustainable Engineering Applications
Samiksha Bisht, IIT Roorkee, Roorkee, Uttarakhand, India

12:00 PM **T18-06:** Enhancing Inactivation of *Escherichia coli, Pseudomonas,* and *Vibrio* spp. in Vitro by Sequential Application of Alkaline and Acidic Electrolyzed Water
Sanaz Mirtalebi, North Carolina State University, Raleigh, NC, USA | Jonathan Allen, North Carolina State University, Raleigh, NC, USA | Greg Bolton, Morehead City, NC, USA | Alexander Chouljenko, North Carolina State University, Morehead City, NC, USA | Lynette Johnston, North Carolina State University, Cary, NC, USA
Steven Hall, North Carolina State University, Raleigh, NC, USA| Fernanda Santos, North Carolina State University, Willow Spring, NC, USA | Natalie Zachman, North Carolina State University, Raleigh, NC, USA

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T19 **Food Law and Regulation and General Microbiology**
Room 6
Convenors: Dom Mitial, Sara Starck

10:45 AM **T19-01:** Ingredient Identifiers: A Simplistic Approach to Global Food Safety and Regulatory Compliance
Dr. Patricia Pratt, Ventura Foods LLC, Brea, CA, USA

11:00 AM **T19-02:** Role of Microbiological Criteria GSO 1016/2015 to Control *E. coli* in Meat
Meshari Alhadlaq, Saudi Food and Drug Authority (SFDA), Riyadh, Riyadh, Saudi Arabia

11:15 AM **T19-03:** Rheological Performance of Biofilm Formation at Oil-Water Interfaces
Yi Wang, University of Connecticut, Storrs, CT, USA | Yangchao Luo, University of Connecticut, Storrs, CT, USA

11:30 AM **T19-04:** Secondary Colonization and Microbial Community Dynamics of *Listeria monocytogenes* in Retail Deli Biofilms
Jack Burnett, Vikan, Zionsville, IN, USA | Hannah Blackwell, The University of Vermont, Burlington, VT, USA | David Buckley, Diversey, Inc., Charlotte, NC, USA Dale Grinstead, Mountain Top Microbiology, Highlands, NC, USA | Haley Oliver, Purdue University, West Lafayette, IN, USA | Maxwell Voorn, Purdue University, West Lafayette, IN, USA

11:45 AM **T19-05:** Redox Homeostasis and Stress Responses in *Campylobacter jejuni* Facilitate Survival under Stresses in the Agri-Food Environment and Antibiotic Treatment
Shenmiao Li, McGill University, Vaudreuil-Dorion, QC, Canada | Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada

12:00 PM **T19-06:** Investigating Prevalence and Ecology of *S. enterica* and *Campylobacter* on Agritourism Operations
Katalin Larsen, The University of Vermont, Burlington, VT, USA | Andrea Etter, University of Vermont, Burlington, VT, USA | Benjamin Chapman, North Carolina State University, Raleigh, NC, USA | Lisa Chase, University of Vermont, Burlington, VT, USA | Audrey Comerford, Oregon State University, Corvallis, OR, USA Jenna Porter, Oregon State University, Corvallis, OR, USA | Catherine Sanders, North Carolina State University, Raleigh, NC, USA | Ellen Thomas Shumaker, North Carolina State University, Raleigh, NC, USA | Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA

S56 **WITHDRAWN**

S57 **Standing Out in a Crowd: Why Some *Salmonella* Strains Break through to Cause Illness**
Atrium A
Organizers: Mark Moorman, Timothy Jackson
Convenor: Mark Moorman
Fruit and Vegetable Safety and Quality PDG
Pre-Harvest Food Safety PDG

01:30 PM Ecology of *Salmonella* in Agricultural Environments
Kristin Butler, U.S. FDA, College Park, MD, USA

02:00 PM Factors Influencing *Salmonella* Strain Persistence and Distribution in the Environment
Eric Brown, FDA-Human Foods Program, College Park, MD, USA

02:30 PM *Salmonella* Diversity/Complexity in Four Natural Water Sources
Nikki Shariat, University of Georgia, Athens, GA, USA

03:00 PM Integrating *Salmonella* Virulence into Risk Assessments
Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

S58 **Define "Lot"? Understanding New Regulatory Standards for *Salmonella* Contamination in Poultry Parts and Strategies for Ensuring Final Product Safety**
Atrium C
Organizers: Rigo Soler, Manpreet Singh
Convenors: Rigo Soler, Saurabh Kumar
Meat and Poultry Safety and Quality PDG
Data Management and Analytics PDG

01:30 PM Current Poultry Situation and New Regulation Framework Summary
Harshavardhan Thippareddi, University of Georgia, Athens, GA, USA

02:00 PM Validating Interventions, Analyzing Hygienic Process Performance and Statistical Process Control to Help in Decision Making and Regulatory Compliance and Clean Breaks Effect on Final Contamination
Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

02:30 PM Data Collected by a Commercial Processor to Help on "Lot" Definition and Product Disposition
David Vargas, Wayne-Sanderson Farms, Athens, GA, USA

03:00 PM With Current Lotting, if It's Determined That an Extra Step of Intervention Is Required, Learning Various Tools Would Empower the Industry to Rethink Interventions and Implement Them as Required!
Joyjit Saha, Kerry, Beliot, IL, USA

S59 **Food Allergies in the American Household – A Roundtable Discussion with Expert Perspectives from the Food Allergy Advocacy, Government, and Medical Communities**
Room 25ABC
Organizer: Joshua Scheinberg
Convenor: Anthony Flood
Food Chemical Hazards and Food Allergy PDG

Robert Earl, FARE, Arlington, VA, USA
Anthony Flood, IFIC, Washington, D.C., USA
Steve Gendel, Gendel Food Safety LLC, Silver Spring, MD, USA
Joshua Scheinberg, Godshall's Quality Meats, Inc., Telford, PA, USA

S60 **Novel Foods, Safety, Shelf Life, and Rapid Methods – Approaches to Test Method Design, Validation and Application in Alternative Protein-Based Products**
Room 26A
Organizer: Andrew Morin
Convenor: Andrew Morin
Plant-Based Alternative Products Quality and Food Safety PDG
Advanced Molecular Analytics PDG

01:30 PM Regulatory Challenges of Method Validation for Novel Foods across Different Standards
Catharine Carlin, Mérieux NutriSciences, Crete, IL, USA

02:00 PM Third Party Testing Lab Perspectives for Novel Foods Testing
Alex Brandt, Food Safety Net Services / Certified Group, San Antonio, TX, USA

02:30 PM Approaches and Considerations for Validating Novel Products
Kristin Schill, Food Research Institute/University of Wisconsin-Madison, Madison, WI, USA

03:00 PM Shelf-Life Design Challenges of Novel Foods: Technological, Microbiological, and Consumer-Driven Perspectives
Chio Saeteurn, BlueNalu, San Diego, CA, USA

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S61 **Can Exceptional Lethality during Thermal Processing Act as a Preventive Control?**
Room 26BC
Organizer: Ariel Buehler
Convenor: Rico Suhalim
Low-Water Activity Foods PDG
Modelling and Risk Analysis PDG

01:30 PM FDA Regulations and Process Validation Considerations
Nathan Anderson, U.S. FDA, Bedford Park, IL, USA

02:00 PM Safety Concerns of Bakery Products and Understanding Exceptional Lethality
Lakshmikantha Channaiah, University of Missouri, Columbia, MO, USA

02:30 PM Exceptional or Not Exceptional – How Do You Know? Defining the Boundaries for Exceptional Lethality
Bradley Marks, Michigan State University, East Lansing, MI, USA

03:00 PM Risk Assessment and Industry Perspective (Safe Harbors)
Lisa Lucore, Shearer's Foods, Massillon, OH, USA

S62 **Integrating Multidisciplinary Produce Safety Research to Inform Regulation**
Room 1
Organizers: Manan Sharma, Kalmia Kniel, Michelle Danyluk
Convenors: Kalmia Kniel, Natalie Dyenson
Fruit and Vegetable Safety and Quality PDG
Water Safety and Quality PDG

01:30 PM Developing a Five-Year Project to Integrate Research and Extension to Inform Cost-Effective Food Project Safety Solutions
Michelle Danyluk, University of Florida, Lake Alfred, FL, USA

02:00 PM Framing the Work: Survival and Control of Enteric Pathogens in Pre- and Post-Harvest Environments
Channah Rock, University of Arizona, Maricopa, AZ, USA | Laurel Dunn, University of Georgia, Athens, GA, USA

02:30 PM From Field to Packinghouse: Quantifying Transfer of Foodborne Pathogens through the Production Continuum/– Droops, Drops, Equipment
Faith Critzer, University of Georgia, Athens, GA, USA

03:00 PM Putting the Pieces Together: Risk Modeling as a Mean to Integrate, Explain and Manage Risks
Donald Schaffner, Rutgers University, New Brunswick, NJ, USA

S63 **LFFM: Five Years of Success in Strengthening Food Safety**
Room 3
Organizers: Ruiqing Pamboukian, Beilei Ge
Convenors: Ruiqing Pamboukian, Michele Sayles, Christopher Waggener
Animal and Pet Food Safety PDG
Advanced Molecular Analytics PDG

01:30 PM LFFM – Five Years of Collaborative Work between FDA and States
Lauren Yeoung, FDA, Rockville, MD, USA

01:45 PM Legionella Outbreak in a Cruise Ship and *Clostridium botulinum* MALDI Validation
Christopher Waggener, FDA, Rockville, MD, USA

02:00 PM How Does LFFM Enhance FDA's Center for Veterinary Medicine's Animal Food Safety Oversight and Antimicrobial Resistance Monitoring?
Beilei Ge, U.S. FDA, Laurel, MD, USA | Sara Sklenka, FDA, Silver Spring, MD, USA

02:30 PM From Concept to Practice: WGS Integration into FDA's LFFM Testing Programs
Ruth Timme, U.S. FDA, Oakland, CA, USA

02:45 PM *Listeria monocytogenes* Recall Investigation in Mung Bean Sprouts
Maria Ishida, New York State Department of Agriculture and Markets, New York, NY, USA | Jessica Price, Virginia Division of Consolidated Laboratory Services, Richmond, VA, USA

03:00 PM Investigating a Near-Fatal Poisoning from Yellow Oleander Mislabeled as Botanical Weight-Loss Nuts
Katie Arnold, FDA, Silver Spring, MD, USA | Sinisa Urban, Maryland Department of Health Laboratories Administration, Baltimore, MD, USA

S64 **The Frontlines of Food Safety Education: Challenges and Opportunities**
Room 4
Organizers: Aaron Lavallee, Shauna Henley, Jennifer Quinlan
Convenors: Aaron Lavallee, Ellen Thomas Shumaker
Food Safety Education PDG

01:30 PM Is Extension Still the Core to Delivering the Core Four?
Britanny Saunier, Partnership for Food Safety Education, Arlington, VA, USA

02:00 PM Revitalizing the Future of Food Safety Extension
H. Lester Schonberger, Virginia Tech, Blacksburg, VA, USA

02:30 PM Research-Based Programming at a Local Level
Lisa Peterson, University of Illinois Urbana-Champaign, Hillsboro, IL, USA

03:00 PM Agriculture and Natural Resources Education
Emily Marrison, The Ohio State University, Columbus, OH, USA

T20 **Food Processing Technologies**
Room 5
Convenors: Valentina Trinetta, Aaron Uesugi

01:30 PM **T20-01:** Synergetic Effect of Elevated Hydrostatic Pressure, Mild Heat, and Carvacrol for Inactivation of Non-Typhoidal *Salmonella* Serovars
Junice Sibley, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Aliyar Fouladkhah, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Shahid Chowdhury, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA
Ranju Kafle, Tennessee State University, Nashville, TN, USA

01:45 PM **T20-02:** Interactions of Five Natural Bioactive Compounds and Elevated Hydrostatic Pressure for Inactivation of Typhoidal and Non-Typhoidal *Salmonella* Serovars in Buffered and Acidic Environments
Ranju Kafle, Tennessee State University, Nashville, TN, USA | Aliyar Fouladkhah, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Shahid Chowdhury, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA | Junice Sibley, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA

02:00 PM **T20-03:** *Salmonella* Montevideo Survival on Chili during Microwave Drying: Optimal Models and Precision Analysis
Natoavina Faliarizao, Michigan State University, East Lansing, MI, USA
Teresa Bergholz, Michigan State University, East Lansing, MI, USA | Kirk Dolan, Michigan State University, East Lansing, MI, USA

02:15 PM **T20-04:** Synergistic Antimicrobial Effect of Plasma-Activated Microbubble Water (PAMW) and Ultraviolet Light (UV) to Enhance *Escherichia coli* Inactivation on Fresh Produce
Juzhong Tan, University of Delaware, Newark, DE, USA | Haiqiang Chen, University of Delaware, Newark, DE, USA | Fariha Meem, University of Delaware, Newark, DE, USA

02:30 PM **T20-05:** Quantitative Analysis of an Enzyme-Based Surrogate to Assess the Antimicrobial Effectiveness at Different Dosages of Plasma-Activated Water
Zhujun Gao, North Carolina State University, Raleigh, NC, USA | Luyao Ma, Oregon State University, Corvallis, OR, USA | Nitin Nitin, Department of Food Science and Technology, University of California, Davis, Davis, CA, USA | Deepti Salvi, North Carolina State University, Raleigh, NC, USA | Qingyang Wang, Oregon State University, Corvallis, OR, USA

02:45 PM **T20-06:** Cold Plasma Gas Flow Rates Impact Inactivation of Pathogens in Fresh Basil
Marciane Magnani, Federal University of Paraíba, João Possoa, Paraiba, Brazil Raquel Taynan Cunha Vieira, Federal University of Ceará, Fortaleza, Ceará, Brazil Louise Iara Gomes de Oliveira, Federal University of Paraíba, João Pessoa, Paraíba, Brazil| Fabiano André Narciso Fernandes, Federal University of Ceará, Fortaleza, Ceará, Brazil | Sueli Rodrigues, Federal University of Ceará, Fortaleza, Ceará, Brazil Donald Schaffner, Rutgers University, New Brunswick, NJ, USA | Edson Douglas Silva Pontes, Federal University of Paraíba, João Pessoa, Paraíba, Brazil

03:00 PM **T20-07:** Impact of Shear Valve Geometry and Fluid Viscosity on Bacterial Spore Inactivation in Ultra-Shear Technology
VM Balasubramaniam, The Ohio State University, Columbus, OH, USA | Hetian Hu, The Ohio State University, Columbus, OH, USA

T21 **Modeling and Risk Assessment**
Room 6
Convenor: John Bassett

01:30 PM **T21-01:** A Probability-Based Growth/Non-Growth Boundary Model for Bacterial Populations
Kento Koyama, Graduate School of Agricultural Science, Sapporo, Japan Junpei Hosoe, Hokkaido University, Sapporo, Japan| Taishi Kato, Hokkaido University, Sapporo, Japan | Shigenobu Koseki, Hokkaido University, Sapporo, Japan

01:45 PM **T21-02:** Predictive Microbial Ecology in Broiler Processing Environment Using Machine Learning and Genomics
Patrick Njage, Technical University of Denmark, Kgs. Lyngby, Denmark Josphat Njenga Gichure, University of Pretoria, Pretoria, University of South Africa

02:00 PM **T21-03:** Peracetic Acid Inactivation of *Salmonella* during Immersion Poultry Chilling: Mathematical Modeling of Fundamental Dynamics
Daniel Munther, Cleveland State University, Cleveland, OH, USA | Vyshnavi Ciluveru, Cleveland State University, Cleveland, OH, USA | Chandrasekhar Kothapalli, Cleveland State University, Cleveland, OH, USA | Shan Ryan, Cleveland State University, Cleveland, OH, USA | Jason Simon, Cleveland State University, Cleveland, OH, USA

02:15 PM **T21-04:** Microbial Exposure Assessment of Uropathogenic *E. coli* in RTE Chicken
Liu-Yean Goh, National Taiwan University, Taipei, Taiwan | Ching-Wen Chang, National Taiwan University, Taipei, Taiwan | Kuan-Hung Lu, Taipei Medical University, Taipei, Taiwan

02:30 PM **T21-05:** A Monte Carlo Simulation Model to Evaluate the Effects of Retail Storage Conditions on Consumer Risk from Romaine Lettuce
Arie Havelaar, University of Florida, Gainesville, FL, USA | Claudia Ganser, University of Florida, Gainesville, FL, USA | Michelle Danyluk, University of Florida, Lake Alfred, FL, USA | Kalindhi Larios, University of Florida, Gainesville, FL, USA | Rafa Muñoz-Carpena, University of Florida, Gainesville, FL, USA

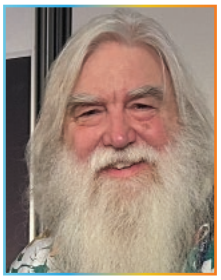
02:45 PM **T21-06:** How Do Temperature Controls and Physiological Changes During Forward Processing Impact Shiga Toxin-Producing *Escherichia coli* O157:H7 Risks in Lettuce?
Joshua Owade, Michigan State University, East Lansing, MI, USA | Teresa Bergholz, Michigan State University, East Lansing, MI, USA | Jade Mitchell, Michigan State University, Lansing, MI, USA

03:00 PM **T21-07:** Evaluating the Reuse of Greywater for Irrigating Ground-Level Fresh Produce: A Microbiological Risk Assessment of Generic *E. coli* Contamination on Lettuce
Andrew Stiven Ortiz Balsero, University of Nebraska-Lincoln, Lincoln, NE, USA Constanza Avello Lefno, Chilean Agency for Food Safety and Quality (ACHIPIA), Santiago, Chile | Bing Wang, University of Nebraska-Lincoln, Lincoln, NE, USA

03:15 PM **T21-08:** Risks Associated with the Use of Untreated Manure Application in Organic Production of Fresh Produce: A Semi-Quantitative Risk Assessment
Kefang Nie, University of California, Davis, Davis, CA, USA | Patrick Baur, University of Rhode Island, Kingston, RI, USA | Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA | José Pablo Gómez-Vázquez, Center for Animal Disease Modelling and Surveillance (CADMS), Dept. of Medicine and Epidemiology, School of Veterinary Medicine, University of California, Davis, Davis, CA, USA | Harsimran Kaur Kapoor, University of Georgia, Athens, GA, USA | Beatriz Martinez-Lopez, University of California, Davis, Davis, CA, USA | Abhinav Mishra, University of Georgia, Athens, GA, USA | Ana R. S. Oliveira, University of California, Davis, Davis, CA, USA | Alda Pires, Dept. Population Health & Reproduction, University of California, Davis, School of Veterinary Medicine, Davis, CA, USA Amber Sciligo, The Organic Center, Washington, D.C., USA

4:00 PM – 4:45 PM U.S. John H. Siliker Lecture

Grand Ballroom C



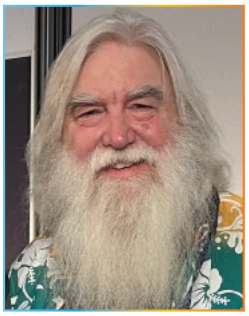
JULIAN COX
FACULTY OF ENGINEERING
UNSW Sydney, NSW, Australia
Of Poultry, Pathogens, and People: Perennial Passions

EVENING EVENTS

6:00 PM – 7:00 PM
Grand Ballroom Foyer Awards Banquet Reception

7:00 PM – 10:00 PM
Grand Ballroom AB Awards Banquet

JOHN H. SILLIKER LECTURE



JULIAN COX

ASSOCIATE PROFESSOR – FOOD MICROBIOLOGY, AND ASSOCIATE DEAN – INTERNATIONAL

FACULTY OF ENGINEERING |
UNSW SYDNEY, NSW, AUSTRALIA

Dr. Julian Cox is Associate Professor – Food Microbiology, and Associate Dean – International, Faculty of Engineering, at UNSW Sydney, New South Wales, Australia. Though officially semi-retired, Dr. Cox maintains a very active program of activities.

Dr. Cox received his B.Sc. and Ph.D. in Microbiology and Food Microbiology from the University of Queensland. Upon graduation, he spent time in the egg industry before returning to his alma mater as a postdoctoral Fellow researcher of *Salmonella* and eggs.

Dr. Cox then joined The University of South Wales as a researcher before becoming a faculty member and has maintained his affiliation to date. During this time, he served as Associate Dean of Education on the Faculty of Science and as International Associate Dean on the Faculty of Engineering.

While supported by an ongoing research program involving pathogens and poultry and educating within his framework and methods, Dr. Cox's focus shifted increasingly toward teaching success skills and public service. He continues to teach food science and technology as well as education for Ph.D. candidates. He is a regular speaker on food microbiology and food safety at both national and international academic and industry meetings. He undertakes a range of volunteer 'passion projects,' including as a laboratory auditor for more than 30 years; as an auditor training framework with GFSI; and as Editor-in-Chief of a major reference text, including journal articles, conference papers and abstracts, and book chapters.

Perhaps most notable in Dr. Cox's work is serving as the Scientific Director of the Food Safety Information Council (FSIC), a health promotion charity in Australia that helps reduce the number of people who fall ill from foodborne illnesses. Through this charity, Dr. Cox communicates food safety messages to the public, including regular appearances on radio and television.

ABSTRACT:

Of Poultry, Pathogens and People: Perennial Passions

A career in science and academia often has a strong central thread, though it may take many twists and turns, becoming a patchwork of themes which blanket that career. A post-PhD egg industry role reinforced the industry context in food safety as well as the place of analysis and technology in quality assurance and risk management. A move to a research centre reinforced these facets, along with a growing link to the poultry industry as a context. Assuming an academic position, with an emphasis on teaching, the role of education made increasingly apparent the place of people in food safety. Increasing focus on education, and communication through and with professional and lay communities has seen this scientist land upon a mantra that food safety is people. This presentation will highlight a range of activities that speak to both mechanistic and humanistic research and outreach activities, from the biology to detection and management of selected foodborne pathogens, notably Salmonella and Campylobacter, to communication of key food safety messages through a range of channels. Hopefully, collectively, these activities have contributed to improved food safety outcomes, from farm to fork, from primary production and processing to the most important link in the chain – the consumer.

JOHN H. SILLIKER

Dr. John H. Silliker founded Silliker Laboratories in 1967, now known as Mérieux NutriSciences with more than 75 locations in 18 countries. Throughout his 50-year IAFP Membership, Dr. Silliker received the Harold Barnum Industry Award and the IAFP Honorary Life Membership Award. He passed away in 2015.

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POSTER SESSIONS

POSTER SESSION 1
MONDAY, JULY 28 - 8:30a.m. – 6:15p.m.

Antimicrobials
Dairy
Data Management and Analytics
Food Allergens
Food Chemical Hazards
Low-Water Activity Foods
Microbial Food Spoilage
Packaging
Physical Hazards and Foreign Materials
Produce
Water

Exhibit Hall

P1-01 through P1-111 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.
P1-112 through P1-216 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.

POSTER SESSION 2
TUESDAY, JULY 29 - 8:30a.m. – 6:15p.m.

Animal and Pet Food Safety
Communication, Outreach and Education
Food Defense
Food Fraud
Food Law and Regulation
Food Processing Technologies
Laboratory and Detection Methods
Pre-Harvest Food Safety
Retail and Food Service Safety
Sanitation and Hygiene
Seafood
Viruses and Parasites

Exhibit Hall

P2-01 through P2-132 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.
P2-133 through P2-225 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.

POSTER SESSION 3
WEDNESDAY, JULY 30 – 8:30a.m. – 3:00p.m.

Beverages and Acid/Acidified Foods
Epidemiology
Food Safety Systems
Food Toxicology
General Microbiology
Meat, Poultry and Eggs
Modeling and Risk Assessment
Molecular Analytics, Genomics and Microbiome
Plant-Based Alternative Products

Exhibit Hall

P3-01 through P3-115 – Authors present 10:00 a.m. – 11:00 a.m. and 12:00 p.m. – 1:00 p.m.
P3-116 through P3-216 – Authors present 11:00 a.m. – 1:00 p.m.

POSTER SESSIONS

MONDAY, JULY 28

8:30 a.m. – 6:15 p.m.

P1 **Poster Session 1 – Antimicrobials, Dairy, Data Management and Analytics, Food Allergens, Food Chemical Hazards, Low-Water Activity Foods, Microbial Food Spoilage, Packaging, Physical Hazards and Foreign Materials, Produce, and Water**

Exhibit Hall

P1-01 through P1-111 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.

P1-112 through P1-216 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.

P1-01 WITHDRAWN

P1-02 In Vitro Antimicrobial Activities of Pelargonic Acid against Foodborne Pathogens – **Purvi Chatterjee**, WTI, Inc., Jefferson, GA, USA, Jaya Sundaram, WTI Inc., Jefferson, GA, USA, Jasdeep Saini, WTI Inc., Jefferson, GA, USA

P1-03 Assessing the Potential of Sustainable Plant Derived Ingredients on Inhibiting Foodborne Pathogens and Food Spoilage Microorganisms – **Purvi Chatterjee**, WTI, Inc., Jefferson, GA, USA, Jaya Sundaram, WTI Inc., Jefferson, GA, USA, Jasdeep Saini, WTI Inc., Jefferson, GA, USA

P1-04 Efficacy of Antimicrobial Washes for Control of *Salmonella enterica* on Fresh-Cut Orchard Peaches – **Bashayer Khouja**, US FDA, Bedford Park, IL, USA, Syeda Bukhari, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Sahithi Cheekati, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Megan Fay, FDA, Wheaton, IL, USA, Joelle Salazar, FDA, Bedford Park, IL, USA, Vincent Sigmund, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Diana Stewart, FDA, Summit-Argo, IL, USA

P1-05 Comparative Efficacy of Chemical and Commercial Washes on Controlling *Salmonella enterica* on Whole Fresh Orchard Peaches – **Bashayer Khouja**, US FDA, Bedford Park, IL, USA, Alexis Kiefer, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Joelle Salazar, FDA, Bedford Park, IL, USA, Diana Stewart, FDA, Summit-Argo, IL, USA, Lilybell Warda, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA

P1-06 Antimicrobial-Resistance Occurrence in Brazilian Antibiotic-Free Chicken Production Farming – **Emanoelli Aparecida Rodrigues dos Santos**, São Paulo State University (UNESP), Botucatu, Brazil, João Araújo Junior, São Paulo State University, Botucatu, Brazil, Gean Azinari, São Paulo State University, Botucatu, Brazil Gabriella Cazolda, São Paulo State University, Botucatu, Brazil, Juliano Pereira, São Paulo State University, Botucatu, Brazil, Fabio Possebon, São Paulo State University, Botucatu, Brazil, Patrícia Regina Melo, São Paulo State University, Botucatu, Brazil, Evelyn SilvaEvelyn Silva, São Paulo State University, Botucatu, Brazil

P1-07 Genotypic and Phenotypic Characterization of Antimicrobial Resistance and Heavy Metal Tolerance in *Enterococcus, E. coli* and *Salmonella* Isolates from Brazil Broiler Feed Samples – **Emanoelli Aparecida Rodrigues dos Santos**, São Paulo State University (UNESP), Botucatu, Brazil, Kelly Domesle, FDA Center for Veterinary Medicine, Laurel, MD, Beilei Ge, FDA, Laurel, MD, USA Chi-Hao Hsu, US FDA, Center for Veterinary Medicine, Laurel, USA, Ryan McDonald, U.S. Food and Drug Administration, Center for Veterinary Medicine, Laurel, USA, Patrícia Regina Melo, São Paulo State University, Botucatu, Brazil, Juliano Pereira, São Paulo State University, Botucatu, Brazil, Fabio Possebon, São Paulo State University, Botucatu, Brazil

P1-08 A Study of Cinnamaldehyde Controlling the Transfer of *Listeria monocytogenes* Biofilm to Meat at Different Formation Periods and Its Mechanism – **Panagiotis Skandamis**, Agricultural University of Athens, Kallithea, Greece, Huixuan Yang, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shangdong, China, Pengcheng Dong, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Tai'an, Taian, Shangdong, China, George-John Nychas, Agricultural University of Athens, Athens, Attica, Greece Yunge Liu, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shangdong, China, Xin Luo, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China, Yimin Zhang, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China

P1-09 Inhibiting Growth of *Penicillium chrysogenum* in Vitro and in Bread Slices by Using Cold Plasma-Modified Polypropene Films Containing Trans-Cinnamaldehyde – **Panagiotis Skandamis**, Agricultural University of Athens, Kallithea, Greece, Anastasia Kapetanakou, Hellenic Agricultural Organisation-DIMITRA, Athens, Greece, Alexandra Alevizopoulou, Laboratory of Food Quality Control and Hygiene, Department of Food Technology & Human Science, Agricultural University of Athens, Athens, Greece, Dimitra Bozinaki, Laboratory of Food Quality Control and Hygiene, Department of Food Technology & Human Science, Agricultural University of Athens, Athens, Greece , Aikaterini Spanou, Laboratory of Food Process Engineering, Department of Food Science and Human Nutrition, School of Food and Nutritional Sciences, Agricultural University of Athens, Athens, Greece, Theofania Tsironi, Laboratory of Food Process Engineering, Department of Food Science and Human Nutrition, School of Food and Nutritional Sciences, Agricultural University of Athens, Athens, Greece

P1-10 *Salmonella* Serovar Variation in Response to Peracetic Acid Treatment: A Comparative Study between Biofilms and Planktonic Cells – **Maria Salazar**, Texas Tech University, Amarillo, TX, USA, Laura Torres, Texas Tech University, Amarillo, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA

P1-11 Raw-Milk Hispanic Hard Cheese Aging: A Microbial Challenge Study to Assess the Fate of Foodborne Pathogens – **Maria Salazar**, Texas Tech University, Amarillo, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Gabriela Mendez Villacorta, Texas Tech University, Amarillo, TX, USA

P1-12 Clean-Label Antimicrobial Alternatives to Control the Growth of *Listeria monocytogenes* in Butternut Squash Soup – **Tushar Verma**, Corbion, Lenexa, KS, USA, Franklin Sumargo, Corbion, Lenexa, KS, USA, Andrew Dillon, Corbion, Lenexa, KS, USA, Eric Lii, Corbion, Lenexa, KS, USA, Garrett McCoy, Corbion, Lenexa, KS, USA

P1-13 Efficacy of Clean-Label Antimicrobials on Outgrowth of Lactic Acid Bacteria in Macaroni and Cheese – **Tushar Verma**, Corbion, Lenexa, KS, USA, Andrew Dillon, Corbion, Lenexa, KS, USA, Eric Lii, Corbion, Lenexa, KS, USA Garrett McCoy, Corbion, Lenexa, KS, USA, Franklin Sumargo, Corbion, Lenexa, KS, USA

P1-14 Control of Yeast and Mold in Hummus Using Clean-Label Preservation – **Tushar Verma**, Corbion, Lenexa, KS, USA, Andrew Dillon, Corbion, Lenexa, KS, USA, Sara LaSuer, Corbion, Lenexa, KS, USA, Eric Lii, Corbion, Lenexa, KS, USA, Garrett McCoy, Corbion, Lenexa, KS, USA, Franklin Sumargo, Corbion, Lenexa, KS, USA

P1-15 Influence of Potassium Ferrate Concentration and Contact Time on the Reduction of *Listeria monocytogenes* in Water – **Ramakrishna Nannapaneni**, Mississippi State University, Mississippi State, MS, USA, Ajay Kumar Yenduri, Mississippi State University, Mississippi State, MS, USA, Nitin Dhowlaghar, Kerry Taste and Nutrition, Beloit, WI, USA, Shecoya White, Mississippi State University, Mississippi State, MS, USA

P1-16 Effectiveness of Potassium Ferrate Concentration and Contact Time on *Listeria monocytogenes* Removal from Stainless Steel Surfaces – **Ramakrishna Nannapaneni**, Mississippi State University, Mississippi State, MS, USA, Ajay Kumar Yenduri, Mississippi State University, Mississippi State, MS, USA, Nitin Dhowlaghar, Kerry Taste and Nutrition, Beloit, WI, USA, Shecoya White, Mississippi State University, Mississippi State, MS, USA

P1-17 Utilization of Sodium and Potassium Vinegar System as Marinades to Increase the Shelf Life of Chicken Tenders – **Surabhi Wason**, Kerry, Beloit, WI, USA, Jasmine Kataria, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beloiot, IL, USA

POSTER SESSIONS

P1-18 Impact of Different Concentrations of Liquid Smoke against *E. coli* O157:H7 in Fresh Carrots – **Surabhi Wason**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA Isaac Romero, Texas Tech University, Lubbock, TX, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-19 Antibiotic Resistance in *Aeromonas* spp. and *Vibrio* spp. from Red Tilapia – **Sotheaboreach Ham**, Royal University of Agriculture, Phnom Penh, Cambodia, Chem Mouylin, Royal University of Agriculture, Phnom Penh, Cambodia, Duk Seyha, Royal University of Agriculture, Phnom Penh, Cambodia

P1-20 Valorization of Biowaste Materials for the Control of Foodborne Pathogens – **Hannah Lee**, Middleton High School, Middleton, WI, USA, Abeer Abujamous, Virginia State University, Petersburg, VA, USA, Catherine Baxley, Virginia State University, Petersburg, VA, USA, Chyer Kim, Virginia State University, Petersburg, VA, USA

P1-21 Natural Antimicrobials for Controlling *Salmonella* on Alfalfa Seeds – **Sookyung Oh**, USDA, Beltsville, MD, USA, Jitu Patel, USDA, Beltsville, MD, USA, Ashley Boomer, USDA, Beltsville, MD, USA

P1-22 Antimicrobial Effects of Essential Oils on Foodborne Pathogens – **Ujjwol Subedi**, University of Maryland, Adelphi, MD, USA, Jitu Patel, USDA, Beltsville, MD, USA, Ashley Boomer, USDA, Beltsville, MD, USA, Abani Pradhan, University of Maryland, College Park, MD, USA

P1-23 Australian Native Essential Oils for Food Safety and Packaging Applications – **Snehal Jadhav**, Deakin University, Melbourne, VIC, Australia, Safira Carvalho, Deakin University, Melbourne, VIC, Australia, Daniel Dias, Deakin University, Melbourne, VIC, Australia Vandana Gulati, University of New England, Armidale, NSW, Australia, Agnes Mukurumbira, Deakin University, Melbourne, VIC, Australia, Kaylie Peters, Deakin University, Melbourne, VIC, Australia, Robert Shellie, Deakin University, Melbourne, VIC, Australia, Shang-Ting Hung Shang-Ting Hung, Deakin University, Melbourne, VIC, Australia

P1-24 Cross-Protection to Food Preservatives Treatments in *Salmonella* Typhimurium – **Marciane Magnani**, Federal University of Paraíba, João Possoa, Paraiba, Brazil, Laura Espina, Fundación Agencia Aragonesa para la Investigación y el Desarrollo, Zaragoza, Spain, Diego Garcia Gonzalo, Instituto Agroalimentario de Aragón-IA2, Zaragoza, Spain, Ivo García Penas, Instituto Agroalimentario de Aragón-IA2, Zaragoza, Spain, Louise Iara Gomes de Oliveira, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Rafael Pagan, Instituto Agroalimentario de Aragón-IA2, Zaragoza, Spain, Ruthchelly Tavares da Silva, Federal University of Paraíba, João Pessoa, Paraíba, Brazil

P1-25 Effect of Bacteriocins Produced by Probiotic Bacteria on *Listeria monocytogenes* infected Coriander Leaves – **Carmen Tartera**, FDA, Laurel, MD, USA, James Shelton, FDA, Laurel, USA

P1-26 Antimicrobial Potential of Benzyl Isothiocyanate Nanoemulsion against Foodborne Pathogens – **Samiksha Bhattarai**, University of Maryland, Adelphi, MD, Jitu Patel, USDA, Beltsville, MD, USA, Abani Pradhan, University of Maryland, College Park, MD, USA

P1-27 Artificial Intelligence of Things – Enhanced Global Antimicrobia-Resistance Automated Surveillance System Using Multiplex Microfluidic Technique – **Jinxin Liu**, McGill University, Montreal, QC, Canada, Alexia Joana Lopez Gachuzo, McGill University, Montreal, QC, Canada, Qian Liu, McGill University, Montreal, QC, Canada Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Luyao Ma, Oregon State University, Corvallis, OR, USA, Xinyu Yan, McGill University, Montreal, QC, Canada

P1-28 Effects of Provontage® 399 on *Listeria* in Chicken Salad at an Elevated pH – **Shelly Gebert**, Third Wave Bioactives, LLC, Wauwatosa, WI, USA, Anne Vravick, Mount Mary University, Wauwatosa, WI, USA

P1-29 Carvacrol Efficacy against Pathogenic *Escherichia coli* Persister Cells on Food and Food Contact Surfaces – **Md Ashrafudoulla**, University of Arkansas, Fayetteville, AR, USA, Kristen Gibson, University of Arkansas, Fayetteville, AR, Sang-Do Ha, Chung-Ang University, Ansung-Si, Gyunggi-Do, Korea (the Republic of)

P1-30 Inhibition of *Listeria monocytogenes* in RTE Cooked Meat Products Using a Synergistic Blend of Organic Acids and Nisin (INBAC-ACN/NA) – **Monica Stephenson**, Chemital, Barcelona, España, Alexandra Roijals Sansano, Chemital, Olèrdola, Barcelona, Spain

P1-31 Exploring Efflux Pump Dependent and Independent Mechanisms of Benzalkonium Chloride Tolerance Evolution in *Listeria monocytogenes* – **Adenike Adeyanju**, University of Massachusetts Amherst, Amherst, MA, USA, John Gibbons, University of Massachusetts Amherst, Amherst, MA, USA

P1-32 Antimicrobial Effects of Capers on *Morganella morganii* in Broth and Sous-Vide Mackerel as a Function of Temperature – **Seulbin Baik**, Kyunghee University, Seoul, Republic of Korea, Ki Sun Yoon, Kyung Hee, Seoul, Republic of Korea

P1-33 Sustainable Carbon Dots Synthesis Using Onion Peel and Their Antimicrobial and Antioxidant Characterization – **Ji Min Ahn**, Kyung Hee University, Seoul, Republic of Korea, Yeon Ho Kim, Kyung Hee University, Seoul, Republic of Korea, Jong-Whan Rhim, Kyung Hee University, Seoul, Republic of Korea, Ki Sun Yoon, Kyung Hee, Seoul, Republic of Korea

P1-34 Evaluation of a Natural Antimicrobial Treatment on Microbial Reductions in Ground Beef Using Petrifilm – **Monica Morales**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Rafael Martinez, Texas Tech University, Lubbock, TX, USA Markus Miller, Texas Tech University, Lubbock, TX, USA, Michael Starnes, Texas Tech University, Lubbock, TX, USA

P1-35 Microbial Quality and Prevalence of Extended Spectrum Beta-Lactamase Producing Bacteria in Vegetable Salad from Local and Elite Restaurants in Ibadan, Nigeria – **Kolawole Banwo**, University of Ibadan, Oyo State, Ibadan, Oyo, Nigeria, Abimbola Adekanmbi, University of Ibadan, Ibadan, Oyo, Nigeria, Joseph Akomolafe, University of Ibadan, Ibadan, Oyo, Nigeria Olukemi Aromolaran, Bowen University, Iwo, Osun, Nigeria, Titilayo Falade, International Institute of Tropical Agriculture, Ibadan, Nigeria

P1-36 Enhancing Food Preservation with Single Atom Catalysts: A Novel Approach to Antimicrobial Packaging – **Wangyi Wei**, Virginia Tech, Blacksburg, VA, USA, Haibo Huang, Virginia Tech, Blacksburg, VA, USA, Young-Teck Kim, Virginia Tech, Blacksburg, VA, USA, Monica Ponder, Virginia Tech, Blacksburg, VA, USA, Danmeng Shuai, The George Washington University, Washington, D.C., USA, Yun Yin, Virginia Tech, Blacksburg, VA, USA

P1-37 Evaluation of the Effects of Root Decontamination of *Salmonella* Using Lactic Acid Bacteria in Living Cilantro *(Coriander Sativum)* Grown Using the Nutrient Film Technique (NFT) – **Laura Araujo**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Jerrad Legako, Texas Tech University, Lubbock, TX, USA, Angela Walla, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA

P1-38 In Vitro Evaluation of Competitive Exclusion and Alteration of Virulence Property of Avian Pathogenic *E. coli* using Probiotics – **Kanchan Thapa**, University of Maryland, College Park, MD, USA, Muhammad Abrar Hashmi, University of Maryland, College Park, MD, USA, Anna Phan, University of Maryland, College Park, Baltimore, MD, USA, Chuan-Wei Tung, University of Maryland, College Park, MD, USA

P1-39 Application of Aerated Nanobubble Water to Control *Listeria monocytogenes* and Improve Sprout Safety – **Eswari Kanike**, University of Connecticut, Storrs, CT, USA, Mary Anne Amalaradjou, Department of Animal Science, University of Connecticut, Storrs, CT, USA, Veera Venkata Praveen Raja Kosuri, University of Connecticut, Storrs, CT, USA, Anjana Thankanchan, University of Connecticut, Willimantic, CT, USA

P1-40 Exploration of Antimicrobial-Production Capabilities of a Potential Starter Culture, *Lactococcus lactis* OSY-92, Using Conventional and Molecular Techniques – **Gabriella Gephart**, The Ohio State University, Columbus, OH, USA, Ahmed Yousef, The Ohio State University, Columbus, OH, USA

Developing Scientist Competitor Undergraduate Student Competitor

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P1-41 Efficacy of Peracetic Acid (PAA) in Combination with a PAA Booster for Clean-in-Place Applications – **Sara Mindek**, Sterilex, Hunt Valley, MD, USA, Madeline Burgess, Sterilex, Hunt Valley, MD, USA, Shayon Brown, Sterilex, Hunt Valley, MD, USA, Kelly Ferguson, Sterilex, Cockeysville, MD, USA, Shelsea Hurdle, Sterilex, Cockeysville, MD, USA, Bruce Urtz, Sterilex, Cockeysville, MD, USA

P1-42 Investigation of *Lactobacillus* and Their Individual Antimicrobial Activity against *Staphylococcus epidermidis* – **Anna Phan**, University of Maryland, College Park, Baltimore, MD, USA, Debabrata Biswas, University of Maryland, College Park, MD, USA, Christa Canagarajah, University of Maryland, College Park, MD, USA, Sarika Kapadia, University of Maryland, College Park, MD, USA, Muhammad Abrar Hashmi, University of Maryland, College Park, MD, USA, Aaron Scriba, University of Maryland, College Park, MD, USA, Kanchan Thapa, University of Maryland, College Park, MD, USA

P1-43 Green Synthesis of Antimicrobial Lignocellulose-Based Nanocomposite Films with Nisin and Oregano Essential Oil against Foodborne Pathogens – **Pratiksha Shrestha**, Louisiana State University, Baton Rouge, LA, USA, Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA, Witoon Prinyawiwatkul, Louisiana State University, Baton Rouge, LA, USA, Abouzeid Ragab, Louisiana State University, Baton Rouge, LA, USA, Qinglin Wu, Louisiana State University, Baton Rouge, LA, USA

P1-44 The Role of Accessory Gene Regulator (Agr)-Mediated Quorum Sensing System in Enhancing the Biosynthesis of the Natural Antimicrobial Peptide, Paenibacillin – **Sochina Ranjit**, The Ohio State University, Columbus, OH, USA, Ahmed Yousef, The Ohio State University, Columbus, OH, USA

P1-45 A Novel Lateral Flow Assay Based on Graphene Quantum Dot-Phage Probe for Detection of *E. coli* O157:H7 – **Liang Mao**, University of Missouri, Columbia, MO, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA

P1-46 Synergistic Effects of Citrospet, Citricidal, Caprylic Acid, Carvacrol, Lactic Acid, and High-Pressure Processing against *Staphylococcus aureus* and *Listeria monocytogenes* – **Md Niamul Kabir**, Albany State University, Albany, GA, USA, Laila Dowdy, Albany State University, Albany, GA, USA, Shohana Huq, Albany State University, Albany, GA, USA, Romona McLeod, Albany State University, Albany, GA, USA

P1-47 Synergy between Acid-Producing Bacteria Strains Improves Inhibition of Seven Different *Salmonella* Serovars – **Maria Duarte**, Texas Tech University, Amarillo, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Matt Garner, Vvntus, Amarillo, TX, USA, Jon Thompson, Texas Tech University, Amarillo, TX, USA

P1-48 Evaluating the Efficacy of Consistent Use of Grapeseed Extract in Preventing Biofilms Formed by *Salmonella enterica* and Leafy Green Native Microbiota on Different Food Contact Surfaces – **Kirat Khushwinder Bains**, University of Arizona, Tucson, AZ, USA, Sadhana Ravishankar, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Libin Zhu, University of Arizona, Tucson, AZ, USA

P1-49 Extending the Shelf Life of Plant-Based Cheese Spread with a Clean-Label Antimicrobial – **Divek Nair**, Kalsec® Inc., Kalamazoo, MI, USA, Julie Bennet, Kalsec, Kalamazoo, MI, USA, Andrew Lee, Kalsec, Kalamazoo, MI, USA, Jesse Neumann, Kalsec, Kalamazoo, MI, USA, Kristin Soave, Kalsec, Kalamazoo, MI, USA

P1-50 The Efficacy of Antimicrobial Coatings in Reducing *Listeria monocytogenes* and *Penicillium expansum* Populations on Organic Gala Apples – **Justin Daniel**, University of Georgia, Athens, GA, USA, Achour Amiri, Washington State University, Pullman, WA, USA, Charles Bency Appolon, University of Georgia, Athens, GA, USA, Lauren Choi, The University of Georgia, Athens, GA, USA, Faith Critzer, University of Georgia, Athens, GA, USA, Mia Gale, The University of Georgia, Athens, GA, USA, Halle Greenbaum, Athens, GA, USA, Rawane Raad, The University of Georgia, Athens, GA, USA

P1-51 *Listeria monocytogenes* Control in Ready-to-Eat Products with a Clean Label Antimicrobial – **Julie Bennett**, Kalsec, Kalamazoo, MI, USA, Andrew Lee, Kalsec, Kalamazoo, MI, USA, Divek Nair, Kalsec® Inc., Kalamazoo, MI, USA, Jesse Neumann, Kalsec, Kalamazoo, MI, USA, Alessandra Pham-Mondala, Kalsec, Kalamazoo, MI, USA, Kristin Soave, Kalsec, Kalamazoo, MI, USA

P1-52 Application of a Microbial Peptide Against an Environmental Isolate of *Listeria monocytogenes* – **Vaishali Poswal**, South Dakota State University, Brookings, SD, USA, Sanjeev Anand, South Dakota State University, Brookings, SD, USA, Brian Kraus, Wells Enterprises, Inc., Le Mars, IA, USA

P1-53 Multi-Drug Resistance Profiling and Genetic Insights of Non-*E. coli Enterobacteriaceae* Isolated from Wastewater in Southeast Wyoming – **Puja Boidya**, University of Wyoming, Laramie, WY, USA, Bledar Bisha, University of Wyoming, Laramie, WY, USA, Nicolas Blouin, University of Wyoming, Laramie, WY, USA

P1-54 Natural Preservatives vs. Pathogens: A MIC Study of *Listeria monocytogenes* and *Salmonella enterica* Strains – **Indu Aashritha Idumalla**, University of Georgia, Athens, GA, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, James Gratzek, University of Georgia, Griffin, GA, USA

P1-55 Next-Generation Probiotics as Novel Strategy to Control Foodborne *Campylobacter jejuni* Infections – **Bibek Lamichhane**, Department of Veterinary Science, Martin-Gatton College of Agriculture, Food, and Environment, University of Kentucky, Lexington, KY, USA, Yosra Helmy, University of Kentucky, Lexington, KY, USA, Ilhem Messaoudi, Department of Microbiology, Immunology and Molecular Genetics, University of Kentucky, Lexington, KY, USA

P1-56 A Clean-Label Casein Fermentate for Mold Prevention in Yogurt – **Xingrui Fan**, University of Wisconsin-Madison, Madison, WI, USA, Dasol Choi, University of California, Los Angeles, Los Angeles, CA, USA, Alanah Kaufmann, University of Wisconsin-Madison, Madison, WI, USA, Lucy Wersinger, University of Wisconsin-Madison, Madison, WI, USA, Jae-Hyuk Yu, University of Wisconsin-Madison, Madison, WI, USA

P1-57 *Bacillus* Metabolites' Antilisterial Potential against *Listeria monocytogenes* WRLP42 When Cultured in Sweet Whey – **Sage Taylor**, Oregon State University, Corvallis, OR, USA, Sindhura Karuthuri, Oregon State University, Corvallis, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA

P1-58 Material Type and Active Ingredient Combinations Impact *Staphylococcus aureus* Cross-Contamination Risk – **Kelly Rainey**, Purdue University, West Lafayette, IN, USA, Maxwell Voorn, Purdue University, West Lafayette, IN, USA, Haley Oliver, Purdue University, West Lafayette, USA, Geraldine Tembo, Purdue University, West Lafayette, IN, USA, Peter Teska, Diversey, Fort Mill, SC, USA

P1-59 Glucose/Lactose-Antibody Conjugates as Growth Inhibitors against *L. monocytogenes* – **Margarita Valdiviezo**, Cornell University, Ithaca, NY, USA, Samuel Alcaine, Cornell University, Ithaca, NY, USA, Timothy DeMarsh, Cornell University, Ithaca, NY, USA

P1-60 The Effect of Natural Preservatives against Heat-Resistant Organisms in Apple Juice and Orange Juice – **Kerry Fitzpatrick**, Ocean Spray Cranberries, Lakeville, MA, USA, Christopher McNamara, Ocean Spray Cranberries, Inc., Lakeville-Middleboro, MA, USA

P1-61 Multidrug-Resistant *Escherichia coli* Isolated from Pastured Broiler Farms in the Southeastern USA – **Jouman Hassan**, University of Georgia (UGA), Griffin, GA, USA, Walid Al Hakeem, USDA-ARS, Athens, GA, USA, Issmat Kassem, UGA, Griffin, GA, USA, Michael Rothrock, U.S. National Poultry Research Center, USDA-ARS, Athens, GA, USA

P1-62 Inhibition of Spoilage Bacteria in Deli Salad Cultured Celery Juice (Vegstable® Secure) – **Kelly Cannon**, Florida Food Products, Eustis, FL, USA, Scott Linebeck, Florida Food Products, Lake Mary, FL, USA, John Minnich, Florida Food Products, Eustis, FL, USA Pavan Soma, Florida Food Products, Eustis, FL, USA, Zhihong Wang, FFP, Eustis, FL, USA

P1-63 Genotypic Characterization of Antimicrobial Resistance of *Escherichia coli* from Wildlife Feedlots and Retail Meat in Laramie, WY – **Aniket Sharma**, University of Wyoming ANSC, Laramie, WY, USA, Bledar Bisha, University of Wyoming, Laramie, WY, USA, Nicolas Blouin, University of Wyoming, Laramie, WY, USA

POSTER SESSIONS

P1-64 Characterization and Optimization of Homemade Electrolyzed Water for Safeguarding Produce Safety and Quality – **Karthik Chaganti**, University of West Alabama, Tuscaloosa, AL, USA, Hung King Tiong, University of West Alabama, Livingston, AL, USA, Lingyan Kong, University of Alabama, Tuscaloosa, AL, USA, Songnan Li, University of Alabama, Tuscaloosa, AL, USA, Kevin Morse, University of West Alabama, Livingston, AL, USA, Julie Payne, University of West Alabama, Livingston, AL, USA, Batrina Reid, University of West Alabama, Livingston, AL, USA, Libo Tan, University of Alabama, Tuscaloosa, AL, USA

P1-65 Replacement of Potassium Sorbate with Natural Preservatives in Banana Filling: Stability Assessment during Storage – **Paula Teixeira**, Universidade Catolica Portuguesa, Porto, Portugal, Miguel Azevedo, Decorgel - Produtos Alimentares, S.A., Trofa, Portugal, Teresa Bento De Carvalho, Universidade Católica Portuguesa, Porto, Portugal, Beatriz Nunes Silva, Universidade Católica Portuguesa, CBQF – Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Porto, Portugal, Beatriz Silva Silva, Decorgel - Produtos Alimentares, S.A., Trofa, Portugal, Elisabetta Tomé, Universidade Católica Portuguesa, CBQF – Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Porto, Portugal

P1-66 Emergence of Azole-Resistant Yeasts in Wine Grape Production – **James Jeffrey**, University of Maryland, College Park, MD, USA, Ryan Blaustein, University of Maryland, College Park, MD, USA, Erin Harrelson, University of Maryland, College Park, MD, USA, Qingyue Zeng, University of Maryland, College Park, MD, USA

P1-67 Effect of pH on Beverage Preservation Using Natural Antifungal Solutions – **Jasmine Kataria**, Kerry, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-68 Efficacy of Natural Plant Extract System against Spoilage Microorganism in Refrigerated Dough – **Rigo Soler**, Texas Tech University, Lubbock, TX, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA Janny Mendoza, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-69 Exploring Antimicrobial Resistance in Small-Scale Food Animal Farms across Tennessee, Alabama, and Georgia – **Goodness Olakanmi**, Tennessee State University, Nashville, TN, USA, Agnes Kilonzo-Nthenge, Tennessee State University, Nashville, TN, USA

P1-70 In Vitro Activity of Cinnamon Bark Essential Oil and Lactic Acid Combination against *Salmonella* – **Ruben Vinueza**, University of Georgia, Athens, GA, USA, Faith Critzer, University of Georgia, Athens, GA, USA, Rawane Raad, University of Georgia, Athens, GA, USA, Blanca Ruiz-Llacsahuanga, University of Georgia, Athens, GA, USA, Manpreet Singh, University of Georgia, Athens, GA, USA, Qixin Zhong, University of Tennessee Knoxville, Knoxville, TN, USA

P1-71 Identifying and Quantifying Antimicrobial-Resistance Genes (ARGs) in Wastewater Sources for Public Health – **Spencer Kuehn**, Michigan State University, East Lansing, MI, USA, Nishita D'Souza, Michigan State University, East Lansing, MI, USA, Wenjing Ren, Michigan State University, East Lansing, MI, USA, Joan Rose, Michigan State University, East Lansing, MI, USA

P1-72 Genomic Insights into *Listeria monocytogenes* from Food Products in Kosovo: A Whole-Genome Sequencing Study – **Anahita Ghorbani Tajani**, University of Wyoming, Laramie, WY, USA, Bledar Bisha, University of Wyoming, Laramie, WY, USA, Besart Jashari, Food and Veterinary Agency of Kosovo, Pristina, Kosovo, Adeoye John Kayode, University of Fort Hare, Alice, South Africa, Beatrix Stessl, University of Veterinary Medicine Vienna, Vienna, Austria

P1-73 Antimicrobial Potential of *Bacillus megaterium* Cell-Free Supernatant against *Listeria* and *Salmonella* Biofilms in Hydroponic Systems – **Sheetal Jha**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA

P1-74 Synergistic Effect of Clove and Cinnamon against *Aspergillus flavus* in Georgia Peanuts – **Alaina McClelland**, Kennesaw State University, Kennesaw, GA, USA, Premila Narayana Achar, Kennesaw State University, Kennesaw, GA, USA, Mohammad A. Halim, Kennesaw State University, Kennesaw, GA, USA, Ari Schwartz, Kennesaw State University, Kennesaw, GA, USA

P1-75 Surveillance of *Salmonella enterica* in Retail Meat Reveals a Megaplasmid in *Salmonella* Panama with a Novel Multidrug Resistance Profile – **Daniel Tichy**, Universidad Andres Bello, Santiago, Chile, Daniel Tichy, Pontificia Universidad Católica de Chile, Santiago, Región Metropolitana, Chile, Constanza Díaz, Universidad Andres Bello, Santiago, Chile, Josefina Miranda, Universidad Mayor, Santiago, Chile Andrea Moreno Switt, Catholic University of Chile, Santiago, Chile, Maria Jose Navarrete, Universidad Catolica de Chile, Santiago, Chile, Paula Reinoso, Pontificia Universidad Católica de Chile, Santiago, Chile

P1-76 Effect of Environmental Stresses on *Salmonella enterica's* Response to Plant-Based Antimicrobial Compounds – **Veerachandra Yemmireddy**, University of Texas Rio Grande Valley, McAllen, TX, USA, Titus Puorizaa, University of Texas Rio Grande Valley, Edinburg, TX, USA, Sairithin Reddy Kothur Thirupathi, University of Texas at Rio Grande Valley, Edinburg, TX, USA

P1-77 Antimicrobial Efficacy of Electrostatically Applied Propionic Acid Alone or in Combination with Lactic Acid against *E. coli* O157:H7 on Fresh Bell Peppers – **Neelam Sharma**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Jack Losso, Louisiana State University, Baton Rouge, LA, USA, Manish Thapaliya, LSU, Baton Rouge, LA, USA

P1-78 Efficacy of Silver Nanoparticles as a Washing Solution to Reduce *E. coli* O157:H7 on the Surface of Sweet Potatoes – **Elisa Guardado Servellon**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA

P1-79 Evaluating Polyphenols as Antimicrobial Agents to Reduce Multi-Drug Resistant *Salmonella* on Chicken Meat Surfaces – **Hunter Sheffield**, Auburn University Poultry Science Department, Auburn, AL, USA, Greeshma Bharathan, Auburn University, Auburn, AL, USA, R. Jeff Buhr, USDA-Agricultural Research Service, U.S. National Poultry Research Center, Poultry Microbiological Safety and Processing Research Unit, Athens, GA, USA , Michelle Hayden, Auburn University, Auburn, AL, USA, Aisha Madi, Auburn University, Auburn, AL, USA, Shabarinath Srikumar, Auburn University, Auburn, AL, USA

P1-80 Antimicrobial Susceptibility of Microbiota Associated with *Spinacia oleracea* var. Capitata and *Brassica oleracea* L. from Farms and Retails – **Jane Nkhebenyane**, Central University of Technology, FS, Bloemfontein, South Africa, Zenzile Khetsha, Central University of Technology, FS, Bloemfontein, Bloemfontein, South Africa, Dineo Mohapi, Central University of Technology, FS, Bloemfontein, Bloemfontein South Africa, Tsepo Ramatla, Central University of Technology, FS, Bloemfontein, South Africa, Oriel Thekisoe, North West University, Potchefstroom, South Africa

P1-81 Antimicrobial-Resistance Profiles, Virulence Factors, and Resistance Genes of *Escherichia coli* in Fresh Vegetables from Selected Traditional Markets in South West Nigeria – **Adewale Obadina**, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria, Itohan Ebunoluwa Martin, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria, Folarin Oguntoyinbo, Appalachian State University, Boone, NC, USA

P1-82 Characteristics of Hispanic-Style Cheese that Influence Growth of *Listeria monocytogenes* in Queso Fresco and Queso Cotija – **Zoe Andersen**, Oregon State University, Portland, OR, USA, Samantha Kilgore, Oregon State University, Portland, OR, USA, Jovana Kovacevic, Oregon State University, Portland, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA

P1-83 Organic Acid Inhibition of *Listeria monocytogenes* Growth in Model Hispanic-Style Cheeses – **Zoe Andersen**, Oregon State University, Portland, OR, USA, Samantha Kilgore, Oregon State University, Portland, OR, USA, Jovana Kovacevic, Oregon State University, Portland, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P1-84 Rapid Detection of Aflatoxin M1 in Goat Milk Products Based on ELISA Method – **Fangzhou Yuan**, Neogen Biotechnology (Shanghai) Ltd., Shanghai, China, Yan Huang, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China

P1-85 Performance Evaluation of Gliadin R5 ELISA Kit in Processed Snacks – **Fangzhou Yuan**, Neogen Biotechnology (Shanghai) Ltd., Shanghai, China, Yan Huang, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China

P1-86 Impact of Clean Label Solutions in Controlling *Listeria monocytogenes* and Spoilage Microorganisms in Cheese Dip – **Janny Mendoza**, Kerry, Beloit, WI, USA, Jyoti Aryal, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Kaylee Rumbaugh, Oklahoma State University, Stillwater, OK, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-87 Control of Spoilage Microorganisms in Cottage Cheese Using Fermentate System – **Janny Mendoza**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-88 *Listeria* Control and Clean Label Interventions in Hispanic Cheese – **Janny Mendoza**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beloit, IL, USA

P1-89 Clean-Label Interventions for Spoilage Prevention in Goat Cheese – **Janny Mendoza**, Kerry, Beloit, WI, USA, Jyoti Aryal, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beloit, IL, USA

P1-90 Improving Food Safety Practices in QFT Cheese Manufacturing: Insights from Inspections and Sampling – **Sean Montgomery**, U.S. FDA, Denver, CO, USA, Kristin Butler, U.S. FDA, College Park, MD, Tennetta Hazard, U.S. FDA, College Park, MD, USA, Michelle Stedman, U.S. FDA, Blanchardville, WI, USA

P1-91 Multidrug-Resistant IncFIB Plasmids Encoding Siderophores Enhance *Escherichia coli* Growth under Iron-Limited Bovine Cecal Conditions – **Bradd Haley**, USDA-ARS, Beltsville, MD, USA, Jo Ann Van Kessel, USDA-ARS, Beltsville, MD, USA, Seon Woo Kim, USDA-ARS, Beltsville, MD, USA

P1-92 Heat Stress in Dairy Cows: Can Heat Stress in Dairy Cows Affect Milk Microbiological and Physicochemical Profiles (Quality) – **Angelica Abdallah**, Mississippi State University, Starkville, MS, USA, Jhennys P. Becerra, Mississippi State University, Mississippi State, MS, USA, Zonia Caro Carvajal, Mississippi State University, Starkville, MS, USA, Peixin Fan, Mississippi State University, Starkville, MS, USA, Himani Joshi, Mississippi State University, Starkville, MS, USA, Juan Silva, Mississippi State University, Mississippi State, MS, USA

P1-93 The Effect of a Probiotic Yoghurt on Gut Microbiome, Low-Grade Inflammation and Weight Status of Obese South African Women – **James Elegbeleye**, University of Pretoria, Pretoria, South Africa, Elna Buys, University of Pretoria, Hatfield, Gauteng, South Africa

P1-94 A Rapid Method to Detect Slow-Growing Molds in Yoghurt – **Xianming Zhao**, Neogen China, Shanghai, China, Wei Cong, Neogen Biotechnology (Shanghai) Ltd., Shanghai, China, Yan Huang, Neogen Biotechnology (Shanghai) Ltd., Shanghai, China Na Li, Neogen Biotechnology (Shanghai) Ltd., Shanghai, China, Zhijun Li, Inner Mongolia Yili Industrial Group Co., Ltd., Hohhot, China, Yingli Sun, Inner Mongolia Yili Industrial Group Co., Ltd., Hohhot, China, Yi Wang, Inner Mongolia Yili Industrial Group Co., Ltd., Hohhot, China

P1-95 Analysis on Microbial Contamination in Raw Milk and Yogurt Production Process – **Hyungjoon Kim**, Kyungpook National University, Daegu, South Korea, Jaein Choe, Kyungpook National University, Daegu, Republic of Korea, Mi-Kyung Park, Kyungpook National University, Daegu, Korea (the Republic of)

P1-96 Dual Species Biofilms of *Listeria monocytogenes* and *Ralstonia insidiosa* Display Altered Extracellular Polymeric Substance Production in a Strain-Dependent Manner – **Kevin Suffredini**, The University of Vermont, Burlington, VT, USA, Andrea Etter, The University of Vermont, Burlington, VT, USA, Eurydice Aboagye, The University of Vermont, Williston, VT, USA

P1-97 Generalized Linear Mixed Models for Retail Food inspection Data: A Case Study Evaluating Ohio's Certified Food Protection Manager Certification – **Allison Howell**, The Ohio State University, Columbus, OH, USA, Nicole Arnold, The Ohio State University, Columbus, OH, USA, Alexander Evans, Franklin County Public Health, Columbus, OH, USA, Sarah Jensen, Franklin County Public Health, Columbus, OH, USA, Barbara Kowalcyk, George Washington University, Washington, D.C., USA

P1-98 Evaluation of Cleaning, Disinfection and Food-Handling Practices in Domestic Kitchens – **Karen Daniela Barón Contreras**, Universidad Autónoma de Querétaro, Queretaro, México, Angélica Godínez Oviedo, Universidad Autónoma de Querétaro, Queretaro, México, Santiago García Huerta, Universidad Autónoma de Querétaro, Queretaro, México Montserrat Hernández Iturriaga, Universidad Autónoma de Querétaro, Queretaro, México, Cynthia Ximena Raya Spindola, Universidad Autónoma de Querétaro, Queretaro, México

P1-99 Overview of Food Contamination by Foodborne Bacteria in Japan Using Published Data – **Junpei Hosoe**, Hokkaido University, Sapporo, Japan, Shigenobu Koseki, Hokkaido University, Sapporo, Japan, Kento Koyama, Graduate School of Agricultural Science, Sapporo, Japan

P1-100 Statistical Tools for Environmental Monitoring Programs in Food Processing Facilities: A Systematic Review – **Arshpreet Kaur Khattra**, Michigan State University, East Lansing, MI, USA, Sanghyup Jeong, Michigan State University, East Lansing, MI, USA, Bradley Marks, Michigan State University, East Lansing, MI, USA

P1-101 Graph Analytics for Sample-Efficient Environmental Monitoring in Food Processing Environments – **Linda Kalunga**, Cornell University, Ithaca, NY, USA, Omer Gokalp Serbetci, University of Southern California, Los Angeles, CA, USA, Renata Ivanek, Cornell, Ithaca, NY, USA, Qing Zhao, Cornell University, Ithaca, NY, USA

P1-102 Harnessing Machine Learning for Enhanced Food Safety and Predictive Analytics – **Ankita Kalra**, University of Nebraska - Lincoln, Lincoln, NE, USA, Yogesh Chawla, University of Nebraska-Lincoln, Lincoln, NE, USA, Ishu Kalra, Northwestern University, Bentonville, AR, USA, Santosh Pitla, University of Nebraska-Lincoln, Lincoln, NE, USA

P1-103 Development of DDPCR Assay for the Detection of Bovine Milk in Foods – **Sarah Stadig**, US FDA, College Park, MD, USA, Anne Eischeid, US FDA, College Park, MD, USA

P1-104 Metabarcoding for Detection of Food Allergens: Target and Primer Selection – **Anne Eischeid**, US FDA, College Park, MD, USA, AC Eischeid, US FDA, College Park, USA

P1-105 Seafood Allergen Cross-Contact Risk Associated with Reuse of Shared Breading Mixtures – **Xingyi Jiang**, US FDA, Bedford Park, IL, USA, Lauren Jackson, US FDA-IFSH, Summit Argo, IL, Stefano Luccioli, US FDA/ CFSAN, College Park, MD, USA, Veronica Moore, US FDA, College Park, MD, USA, Ben Remington, Remington Consulting Group B.V., Utrecht Area, Netherlands, Benjamin Warren, US FDA, Center, for Food Safety & Applied Nutrition, Office of Food Safety, Woodbury, MN, USA, Laurie Williams, US FDA, College Park, MD, USA

P1-106 Mass Spectrometry Analysis of Milk Proteins in Heated Oil Systems – **Francisca Asigri**, University of Nebraska-Lincoln, Lincoln, NE, USA, Joseph Baumert, University of Nebraska-Lincoln, Lincoln, NE, USA, Melanie Downs, University of Nebraska-Lincoln, Lincoln, NE, USA

P1-107 Comparison of Manual and Fully Automated ELISA Test Procedures Using Hygiena's Glutentox® ELISA Rapid G12 Assay – **Carlos Galera**, Hygiena Diagnóstica España S.L., Camas (Sevilla), Sevilla, España, Jennine Cannizzo, Hygiena, Gorham, ME, USA, Ana López, Hygiena Diagnóstica España S.L., Camas (Sevilla), Seville, España Charles Morris, Hygiena, New Castle, DE, USA, Ismael Romero, Hygiena Diagnóstica España S.L., Camas (Sevilla), Sevilla, Spain, Claudia Salagre, Hygiena Diagnóstica España S.L., Camas (Sevilla), Sevilla, España, Julie Weller, Hygiena, New Castle, DE, USA

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P1-108 Identification of Antigenicity Changes in Tenebrio Molitor Larva (TML) and Their Detection in Processed Foods Using Indirect Enzyme-Linked Immunosorbent Assay – **Dong-Gyu Lee**, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ji Yoon Chang, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ik-Jun Choi, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Hye-jin Kim, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Jeong-Eun Lee, Institute of Food Analysis Research Center, Korea Food Research Institute, Wanju, Jeollabuk-do, South Korea, Won-Bo Shim, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ho-Jin Song, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Hee-Kyeong YangHee-Kyeong Yang, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea

P1-109 Allergenicity Changes of Thermal Stable-Soluble Proteins in Shrimp *(Litopenaeus vannamei)* and Analysis of Shrimp Presence in Processed Foods Using Indirect Enzyme-Linked Immunosorbent Assay – **호진 송**, Gyeongsang National University, Jinju, Gyeongnam, South Korea, Ji Yoon Chang, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ik-Jun Choi, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea Hye-jin Kim, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Dong-Gyu Lee, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Jeong-Eun Lee, Institute of Food Analysis Research Center, Korea Food Research Institute, Wanju, Jeollabuk-do, South Korea, Won-Bo Shim, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Hee-Kyeong Yang, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea

P1-110 Comparison of Six Commercial Sesame ELISA Kits on Their Reliability of Detecting and Quantifying Sesame Residue from Buffer and Cracker Matrices – **Shyamali Jayasena**, University of Nebraska Lincoln, Lincoln, NE, USA, Janine Merkle, University of Nebraska-Lincoln, Lincoln, NE, USA, Joseph Baumert, University of Nebraska Lincoln, Lincoln, NE, USA

P1-111 Identification of Abundant and Persistent Gluten Peptides Post-Fermentation – **Sara Schlange**, University of Nebraska-Lincoln, Lincoln, NE, USA, Joseph Baumert, University of Nebraska-Lincoln, Lincoln, NE, USA, Melanie Downs, University of Nebraska-Lincoln, Lincoln, NE, USA

P1-112 Determination of N-Nitrosamines and N-Nitrosatable Substances Migrating from Food-Contact Rubber Materials Using Gas Chromatography-Mass Spectrometry – **Li Xiao**, McGill University, Sainte-Anne-De-Bellevue, QC, Canada, Marti Hua, McGill University, Montreal, QC, Canada, Chao Ji, Tianjin Normal University, Tianjin, China, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Yudong Xing, McGill University, Montreal, QC, Canada, Tian Yang, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Wenjie Zheng, Tianjin Normal University, Tianjin, China

P1-113 Development of Gas Chromatography-Thermal Energy Analysis for Determining N-Nitrosamines and N-Nitrosatable Substances Migrating from Food-Contact Rubber Materials – **Li Xiao**, McGill University, Sainte-Anne-De-Bellevue, QC, Canada, Marti Hua, McGill University, Montreal, QC, Canada, Chao Ji, Tianjin Normal University, Tianjin, China Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Yudong Xing, McGill University, montreal, QC, Canada, Tian Yang, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Wenjie Zheng, Tianjin Normal University, Tianjin, China

P1-114 Analysis of Commonly Consumed Foods for Perchlorate – **Tunde Akinleye**, Consumer Reports, Yonkers, NY, USA, Sana Mujahid, Consumer Reports, Yonkers, NY, USA, James Rogers, Consumer Reports, Yonkers, NY, USA

P1-115 Microbial Contamination in Finished Compost from Composting Facilities across California – **Kefang Nie**, University of California-Davis, Davis, CA, USA, Shrijana Duwadi, University of California-Merced, Merced, CA, USA, Elliot Campbell, University of California-Santa Cruz, Santa Cruz, CA, USA, Daniel Geisseler, University of California-Davis, Davis, CA, USA, Jorge Gomez Ortega, University of California-Santa Cruz, Santa Cruz, CA, USA, Cristina Lazcano, University of California-Davis, Davis, CA, USA, LaZaria McWright, University of California-Davis, Davis, CA, USA, Mariel Mondragon-Becerra, University of California-Davis, Davis, CA, USA

P1-116 Microfluidic Optical Aptasensor for Mycotoxin Detection in Agri-Foods – **Marti Hua**, McGill University, Montreal, QC, Canada, Jinxin Liu, McGill University, Montreal, QC, Canada, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada M. S. Roopesh, University of Alberta, Edmonton, AB, Canada

P1-117 Risk Assessment of Selected Veterinary Drug Residues in Cattle in the USA – **Abdullah Alwahaimed**, Virginia Tech, Blacksburg, VA, USA, Joseph Eifert, Virginia Tech, Blacksburg, VA, USA

P1-118 Mycotoxins in Wheat and Corn: A Review of Regulations and Risk to the Population – **Sydney Blanks**, The Mennel Milling Company, Logan, OH, USA, Karina Martino, The Mennel Milling Company, Doylestown, PA, USA

P1-119 Study of Two Candidate Methods Submitted for AOAC SMPR 2023.003 Per- and Polyfluoroalkyl Substances (PFAS) in Produce, Beverages, Dairy Products, Eggs, Seafood, Meat Products, and Feed – **Andrew Savage**, Nestle Quality Assurance Center, Dublin, OH, USA, Lowri DeJager, U.S. FDA, College Park, MD, USA, Susan Genualdi, U.S. FDA, College Park, MD, USA, Ashley Griffin, Nestle Quality Assurance Center, Dublin, OH, USA, Ashten Noble, Nestle Quality Assurance Center, Dublin, OH, USA, Manjula Sunkara, U.S. FDA, College Park, MD, USA

P1-120 Microbiological Quality and Method Optimization for Quantification of Aflatoxin B1 in Buckwheat – **La Fontaine Bahatsi**, University of Nebraska-Lincoln, Lincoln, NE, USA, Andreia Bianchini, University of Nebraska-Lincoln, Lincoln, NE, USA, Jaqueline Garda-Buffon, Federal University of Rio Grande, Rio Grande do Sul, Brazil Jayne Stratton, University of Nebraska-Lincoln, Lincoln, NE, USA

P1-121 Heavy Metals in Various Spices Purchased in the New York City Area – **Sana Mujahid**, Consumer Reports, Yonkers, NY, USA, Eric Boring, Consumer Reports, Yonkers, NY, USA, Kristen Dorrell, Consumer Reports, Yonkers, NY, USA, James Rogers, Consumer Reports, Yonkers, NY, USA

P1-122 Stability of *Listeria monocytogenes* in Powdered Peanut Butter during Isothermal Treatment and Long-Term Storage – **Laura Munoz Leiva**, New Mexico State University, Las Cruces, NM, USA, Luis Sabillon, New Mexico State University, Las Cruces, NM, USA

P1-123 Thermal Resistance and Long-Term Survival of *Listeria monocytogenes* in Whole Egg Powder – **Laura Munoz Leiva**, New Mexico State University, Las Cruces, NM, USA, Luis Sabillon, New Mexico State University, Las Cruces, NM, USA

P1-124 Comparison of Tempering Treatment Technologies for Pathogen Reduction on Wheat Grain – **Yawei Lin**, Michigan State University, East Lansing, MI, USA, Teresa Bergholz, Michigan State University, East Lansing, MI, USA, Scott Osborne, The Mennel Milling Company, Fostoria, OH, USA, Shaney Rump, Michigan State University, East Lansing, MI, USA

P1-125 The Effect of X-Ray Irradiation Technology on *Salmonella* spp. and Quality Parameters of Ready-to-Bake Chocolate Chip Cookie Dough – **Kala Morris**, Mississippi State University, Mississippi State, MS, USA, Angelica Abdallah, Mississippi State University, Starkville, MS, USA, Jhennys P. Becerra, Mississippi State University, Mississippi State, MS, USA, Kenisha Gordon, Mississippi State University, Starkville, MS, USA, Meredith Maynard, Mississippi State University, Mississippi State, MS, USA, Seongbin Park, Mississippi State University, Mississippi State, MS, USA, Kyle Sharpe, Mississippi State University, Mississippi State, MS, USA, Shecoya White, Mississippi State University, Mississippi State, MS, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P1-126 Effectiveness of Intense Pulsed Light, Cold Plasma, and UV Radiation in Reducing *Salmonella* Contamination on Wheat Grains: A Comparative Analysis – **Shivaprasad Doddabematti Prakash**, Kansas State University, Manhattan, KS, USA, Snehasis Chakraborty, Kansas State University, Manhattan, KS, USA, Jared Rivera, Kansas State University, Manhattan, KS, USA, Kaliramesh Siliveru, Kansas State University, Manhattan, KS, USA

P1-127 Synergistic Effects of UV/Vis Treatment and Acidic Water Tempering against Pathogenic *E. coli* Contamination in Hard Red Winter (HRW) Wheat Grains – **Jared Rivera**, Kansas State University, Manhattan, KS, USA, Shivaprasad Doddabematti Prakash, Kansas State University, Manhattan, KS, USA, Kaliramesh Siliveru, Kansas State University, Manhattan, KS, USA

P1-128 Ascorbic Acid Significantly Reduces Thermal Resistance of *Salmonella* spp. and *Enterococcus faecium* in Dry Heat – **Rajesh Dangal**, South Dakota State University, Brookings, SD, USA, Tejaswi Boyapati, South Dakota State University, Brookings, SD, USA, Kasiviswanathan Muthukumarappan, South Dakota State University, Brookings, SD, USA, Ren Yang, South Dakota State University, Brookings, SD, USA

P1-129 Assessing Variation in Desiccation Tolerance Associated Phenotypes among *Salmonella* Serovars – **Shaney Rump**, Michigan State University, East Lansing, MI, USA, Teresa Bergholz, Michigan State University, East Lansing, MI, USA, Yawei Lin, Michigan State University, East Lansing, MI, USA

P1-130 Isothermal Inactivation of *Enterococcus faecium* NRRL B-2354 on Apple Cubes at Different Temperatures and Water Activities – **Suresh Vakkalagadda**, FDSN/Illinois Tech, Chicago, IL, USA, Nathan Anderson, U.S. FDA, Bedford Park, IL, USA, Elizabeth Grasso-Kelley, U.S. FDA, Darien, IL, USA, Alvin Lee, Institute for Food Safety and Health, Bedford Park, IL, USA, Xiyang Liu, Institue of Food Safety and Health, Bedford Park, IL, USA

P1-131 Air-Dried Beef: Comparison of Acid-Adapted and Non-Adapted *Salmonella* Serovars in Process Validation to Achieve 5-log Reduction – **Pratikchhya Adhikari**, Oklahoma State University, Stillwater, OK, USA, Peter Muriana, Oklahoma State University, Stillwater, OK, USA

P1-132 Thermal Inactivation of *Salmonella* in Flaxseed under Dynamic Elevated Heat Treatment – **Natoavina Faliarizao**, Michigan State University, East Lansing, MI, USA, Teresa Bergholz, Michigan State University, East Lansing, MI, USA, Kirk Dolan, Michigan State University, East Lansing, MI, USA Yawei Lin, Michigan State University, East Lansing, MI, USA, Shaney Rump, Michigan State University, East Lansing, MI, USA, Nolan Schinderle, Michigan State University, East Lansing, MI, USA, Hui Zeng, Michigan State University, Okemos, MI, USA

P1-133 *Pseudomonas aeruginosa* and *Salmonella enterica* Enhance *Cronobacter sakazakii's* Growth in Dual-Species in Vitro Dry Surface Biofilms – **Daniel Fajardo**, Purdue University, West Lafayette, IN, USA, Rishi Drolia, ODU, Norfolk, VA, USA, Victoria Felton, Old Dominion University, Norfolk, VA, USA, Haley Oliver, Purdue University, West Lafayette, IN, USA

P1-134 Saturated Steam Treatment as a Kill-Step for *Salmonella enterica* Reduction on In-Shell Pecans – **Dikshya Shilpakar**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA

P1-135 Comparing the Survival of Co-Inoculated *Salmonella* Enteritidis PT 30 and *Enterococcus faecium* NRRL B-2354 on Whole and Broken Almonds during Dry Heating at 168°C – **Yucen Xie**, University of California-Davis, Davis, CA, USA, Emily Durbin, University of California-Davis, Davis, CA, USA, Linda J. Harris, University of California-Davis, Davis, CA, USA, Vanessa Lieberman, University of California-Davis, Davis, CA, USA, Christopher Theofel, University of California-Davis, Davis, CA, USA

P1-136 Thermal Inactivation of *Cronobacter sakazakii* in Reconstituted Powered Infant Formula: Systematic Review and Meta-Regression – **Jaber Ghorbani**, University of Nebraska-Lincoln, Lincoln, NE, USA, Byron Chaves, University of Nebraska-Lincoln, Lincoln, NE, USA, Ilhami Okur, University of Nebraska-Lincoln, Lincoln, NE, USA, Bing Wang, University of Nebraska-Lincoln, Lincoln, NE, USA

P1-137 Quantifying Pathogen Transfer from Low-Moisture Food Persistent Bacterial Populations (LMF PBP) to Non-Contaminated Products – **Kavita Patil**, University of Arkansas, Fayetteville, AR, USA, Jennifer Acuff, University of Arkansas, Fayetteville, AR, USA, Manita Adhikari, University of Arkansas, Fayetteville, AR, USA

P1-138 Evaluation of Real-Time PCR Methods for the Detection of *Listeria monocytogenes* in Spices, Seasonings, and Flavorings – **John Mills**, bioMérieux, Inc., Fenton, MO, USA, Jada Jackson, bioMérieux, Hazelwood, MO, USA, Samoa Asigau, bioMerieux, Inc., Hazelwood, MO, USA, Michelle Keener, bioMérieux, Hazelwood, MO, USA, Safia Madani, bioMérieux Inc., Hazelwood, MO, USA, Nikki Taylor, bioMérieux, Inc., Hazelwood, MO, USA

P1-139 Investigating the Efficacy of Hot Air-Drying on Color and *Salmonella* and *E. coli* Populations on Microgreens – **Travis Sananikone**, University of Arkansas, Fort Smith, AR, USA, Jennifer Acuff, University of Arkansas, Fayetteville, AR, USA

P1-140 Enhancing Strawberry Shelf Life with Encapsulated Curcumin and Quercetin – **Thomas Taylor**, Texas A&M University, College Station, TX, USA, Angela Parry-Hanson Kunadu, Texas A&M University, College Station, TX, USA, Mustapha Akbulut, Artie McFerrin Department of Engineering, Texas A&M University, College Station, TX, USA, Yashwanth Arcot, Artie McFerrin Department of Engineering, Texas A&M University, College Station, TX, USA, Javad Barouei, Prairie View A&M University, Prairie View, TX, USA, Luis Cisneros-Zevallos, Department of Horticultural Sciences, Texas A&M University, College Station, TX, USA

P1-141 Nano-Curcumin and -Quercetin for Enhanced Foodborne Bacterial inhibition – **Thomas Taylor**, Texas A&M University, College Station, TX, USA, Angela Parry-Hanson Kunadu, Texas A&M University, College Station, TX, USA, Mustapha Akbulut, Artie McFerrin Department of Engineering, Texas A&M University, College Station, TX, USA, Yashwanth Arcot, Artie McFerrin Department of Engineering, Texas A&M University, College Station, TX, USA Javad Barouei, Prairie View A&M University, Prairie View, TX, USA

P1-142 Clean-Label Natural Flavor-Based Preservation System to Extend the Shelf Life of Fresh Noodles – **Snigdha Guha**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-143 Effectiveness of Natural Flavor in Controlling *Listeria monocytogenes* in Almond Milk – **Snigdha Guha**, Kerry Inc, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-144 Efficacy of Vinegar and Natural Flavor for Extending the Shelf Life of Flavored Sauce against *Zygosaccharomyces bailii* – **Snigdha Guha**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-145 Shelf-Life Extension of Fresh Ready-to-Eat Meat and Cheese Bowls against Spoilage Microorganisms and *Listeria monocytogenes* – **Snigdha Guha**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-146 Shelf Life Extension of Ready-to-Eat Mac and Cheese Bowls – **Snigdha Guha**, Kerry, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P1-147 Analysis of Anti-Germination Activity of Sucrose Ester of Palmitic Acid on *Bacillus subtilis* Spores – **Masami Miyake**, Osaka Metropolitan University, Uzumisano, Osaka, Japan, Rana Okawaki, Osaka Prefecture University, Izumisano, Osaka, Japan, Kenichi Sakurai, Osaka Prefecture University, Izumisano, Osaka, Japan, Satoshi Sekimoto, Mitsubishi Chemical Corporation, Yokohama, Kanagawa, Japan, Mayo Yasugi, Osaka Metropolitan University, Izumisano, Osaka, Japan

POSTER SESSIONS

P1-148 Applying a Digital Solution to Assess Food and Beverage E-Commerce Distribution Systems – **Jun Su**, Cornell University, Ithaca, NY, USA, Renata Ivanek, Cornell, Ithaca, NY, USA, Nicole Martin, Cornell University, Ithaca, NY, USA, Chenhao Qian, Cornell, Ithaca, NY, USA, Aljosa Trmcic, Cornell University, Ithaca, NY, USA, Zoe Wasserlauf-Pepper, Cornell, Ithaca, NY, USA, Martin Wiedmann, Cornell University, Ithaca, NY, USA

P1-149 Rapid Detection of *Bacillus* Species Spores in Chocolate-Flavored Pudding Cups Using Hygiena's Innovate™ System – **Julie Weller**, Hygiena, New Castle, DE, USA, Deja Latney, Hygiena/Qualicon, New Castle, DE, USA

P1-150 Improving the Spoilage Stability of Mild and Spicy Sauces with Artificial and Natural Preservatives – **Shiwei Xu**, the Kraft Heinz Company, Glenview, IL, USA, Aiswariya Deliephan, Kraft Heinz Company, Glenview, IL, USA, Eric Ewert, Kraft Heinz, Glenview, IL, USA, Jonathan Wiese, the Kraft Heinz Company, Glenview, IL, USA, Mu Ye, Kraft Heinz Company, Glenview, IL, USA

P1-151 Effect of Main Ingredients of Cream on the Behavior of *Staphylococcus aureus* in Cream-Filled Bread – **EUN BIN CHOI**, Kyung Hee University, Seoul, Republic of Korea, Ki Sun Yoon, Kyung Hee, Seoul, Republic of Korea

P1-152 Antifungal Properties of Lactic Acid Bacteria Isolated from Maltese Sheep Milk and Cheese – **Muhammad Ahmed Ihsan**, University of Malta, Msida, Malta, Sholeem Griffin, University of Malta, Msida, Malta, Vasilis Valdramidis, University of Athens, Athens, Greece

P1-153 Shelf Life and Microbial Community Dynamics of Reduced Oxygen-Packaged Seafood Products – **Nethraja Kandula**, Florida State University, Tallahassee, FL, USA, Jing Jing Cheng, Florida State University, Tallahassee, FL, USA, Victoria Cortes, Florida State University, Tallahassee, FL, USA, Leqi Cui, Florida State University, Tallahassee, FL, USA, Samuel Kwawukume, Florida State University, Tallahassee, FL, USA, Prashant Singh, Florida State University, Tallahassee, FL, USA

P1-154 AI-Enabled Approach for the Rapid and Specific Detection of Bacteria from Diverse Food Matrices – **Nitin Nitin**, Department of Food Science and Technology, University of California-Davis, Davis, CA, USA, Hyeon Woo Park, Korea University, Sejong, South Korea, Zhengao Li, Florida State University, Tallahassee, FL, USA, Luyao Ma, Oregon State University, Corvallis, OR, USA

P1-155 Microbiological Quality and Safety of Frozen Blueberries Sold in Korea – **Jiin Jung**, Gyeongsang National University, Jinju, Gyeongnam, Korea, Suyoung Lim, Gyeongsang National University, Jinju, Gyeongnam, Korea

P1-156 Evaluation of UV-C and Organic Antimicrobial Treatments to Control *Penicillium expansum* on Post-Harvest Apples – **Emily Lopez**, Oregon State University, Corvallis, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA, Qingyang Wang, Oregon State University, Corvallis, OR, USA

P1-157 Evaluating the Microbial Dynamics of Different Packaging Technologies of Steaks under Prolonged Storage – **Sabrina Blandon**, Texas Tech University, Lubbock, TX, USA, Chance Brooks, Texas Tech University, Lubbock, TX, USA, Jerrad Legako, Texas Tech University, Lubbock, TX, USA, Elizabeth Neal, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA, Dale Woerner, Texas Tech University, Lubbock, TX, USA

P1-158 Shelf-Life Extension of Pomegranate Arils Using the Synergistic Combination of Aqueous Olive Pomace Extract (OPE) and Mild Heat – **Yoonbin Kim**, University of California-Davis, Davis, CA, USA, Taeyeon Cha, University of California-Davis, Davis, CA, USA, Inyoung Choi, University of California-Davis, Davis, CA, USA, Nitin Nitin, Department of Food Science and Technology, University of California-Davis, Davis, CA, USA, Selina C. Wang, University of California-Davis, Davis, CA, USA

P1-159 Antifungal Activity of *Lactobacillus plantarum* KM2 against *Cladosporium* spp. and *Fusarium* spp. and Its Potential Application as Bioprotective Culture – **Jaein Choe**, Kyungpook National University, Daegu, Republic of Korea, Hyung-Joon Kim, Kyungpook National University, Daegu, Republic of Korea, Mi-Kyung Park, Kyungpook National University, Daegu, Republic of Korea, Jeong-Ah Yun, School of Food Science and Biotechnology, Kyungpook National University, Daegu, Republic of Korea

P1-160 Investigation of Elution Characteristics by Material for Food Contact Materials in South Korea – **Jihea Moon**, Ministry of Food and Drug Safety, Incheon, 대한민국, JwaHaeng Park, Ministry of Food and Drug Safety, Incheon, 대한민국, DongWoo Shin, Food Standard Analysis Division, Center for Food & Drug Analysis, Inchon, South Korea

P1-161 Development of Carbohydrate-Based Packaging Films Incorporated with CAM-21 Bacteriophage for Biocontrol of *E. coli* O157:H7 on Baby Spinach – **Khatereh Shirani**, University of Missouri, Columbia, MO, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA

P1-162 Assessing the Biodegradability of Bacterial Cellulose Processed with Different Drying Techniques in Simulated Environments for Packaging Sustainability – **Aakankshya Dhakal**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA

P1-163 Food Contamination by Foreign Materials Detected in Commercial Laboratories in Japan, 2015-2019 – **Masaru Tamura**, National Institute of Health Sciences, Kawasaki-shi, Kanagawa, Japan, Hiroshi Amanuma, National Institute of Health Sciences, Kawasaki-shi, Japan, Akira Fujimura, Ikari Shodoku Co., Ltd., Shibuya-ku, Japan Shizunobu Igimi, Food Safety Research Center, Tokyo University of Agriculture, Setagaya-ku, Japan, Hitoshi Inoue, Japanese Consumers' Co-operative Union, Shibuya-ku, Japan, Kunihiro Kubota, National Institute of Health Sciences, Kawasaki, Japan, Yuko Kumagai, Wayo Women's University, Ichikawa-City, Japan, Yoshinori Mizoguchi, Hiroshima Jogakuin University, Hiroshima-shi, Japan

P1-164 Transfer of *Salmonella enterica*, *Escherichia coli* O157:H7 and *Listeria monocytogenes* to Microgreens and Soil from Contaminated Irrigation Water – **Aishwarya Rao**, University of Maryland, College Park, MD, USA, Jitu Patel, USDA, Beltsville, MD, USA, Abani Pradhan, University of Maryland, College Park, MD, USA

P1-165 Alternative Irrigation Water with Different Microbial Profile Affects the Bioactive Components of Microgreens – **Aishwarya Rao**, University of Maryland, College Park, MD, USA, Jitu Patel, USDA, Beltsville, MD, USA, Yanfang Li, USDA, Beltsville, MD, USA, Abani Pradhan, University of Maryland, College Park, MD, USA, Jianghao Sun, USDA, Beltsville, MD, USA

P1-166 Survival of *Listeria monocytogenes* on the Surface of Blueberries and Raspberries Stored at -18°C and 4°C – **Miriam Ruiz**, Washington State University – Irrigated Agriculture Research and Extension Center, Prosser, WA, USA, Claire Murphy, Washington State University, Prosser, WA, USA

P1-167 Reduction of *Listeria monocytogenes* on Blueberries and Post-Harvest Water by UV-C Light – **Miriam Ruiz**, Washington State University – Irrigated Agriculture Research and Extension Center, Prosser, WA, USA, Claire Murphy, Washington State University, Prosser, WA, USA

P1-168 Impact of Pre-Harvest Water Stress on Enteric Pathogen Persistence on Baby Romaine Lettuce in Storage – **Claire Hudson**, University of Maryland, College Park, MD, USA, Shirley Micallef, University of Maryland, College Park, MD, USA, Guy Kilpatric, University of Maryland, Terp Farm, Upper Marlboro, MD, USA, Diksha Klair, University of Maryland, College Park, MD, USA, Donald Murphy, University of Maryland, Upper Marlboro Facility, Upper Marlboro, MD, USA

P1-169 Specialized Metabolite Responses to Internalized Enteropathogens in Baby Romaine Lettuce 'Carlsbad' Pre- and Post-Harvest – **Claire Hudson**, University of Maryland, College Park, MD, USA, Shirley Micallef, University of Maryland, College Park, MD, USA

P1-170 Galacturonic and Quinic Acid Levels on Tomato Fruit Surfaces Vary by Cultivar and Ripeness and Show Differential Association with *Salmonella* Newport – **Adam Hopper**, University of Maryland, College Park, MD, USA, Shirley Micallef, University of Maryland, College Park, MD, USA

P1-171 Tomato Exocarp Polyphenolic Profiles Show Cultivar Variation and Shift Differentially When Inoculated with Eight *Salmonella enterica* Serovars on the Fruit Surface – Adam Hopper, University of Maryland, College Park, MD, USA, Shirley Micallef, University of Maryland, College Park, MD, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P1-172 Effect of Flavonoids from Tomato Exocarp Extracts on *Salmonella* Growth Dynamics in Vitro – **Adam Hopper**, University of Maryland-College Park, College Park, MD, USA, Shirley Micallef, University of Maryland, College Park, MD, USA, Olivia Pineau, University of Maryland, College Park, MD, USA

P1-173 Comparing the Survival of *Listeria innocua* on Organic and Conventional Pears Stored under Commercial RA and CA Conditions – **Edmund Larbi Afari**, Washington State University, Pullman, WA, USA, Jeanene Deavilla, Washington State University, Pullman, WA, USA, Mengqian Hang, Washington State University, Pullman, WA, USA, Zi Hua, Washington State University, Pullman, WA, USA, Moonbin Jo, Washington State University, Pullman, WA, USA, Manoella Mendoza, Washington Tree Fruit Commission, Wenatchee, WA, USA, Yuan Su, Washington State University, Pullman, WA, USA, Bhim Thapa, Washington State University, Pullman, WA, USA

P1-174 The Fate of *Listeria innocua* on Bartlett, D'Anjou, and Bosc Pears over 36 Weeks of Commercial Storage – **Edmund Larbi Afari**, Washington State University, Pullman, WA, USA, Mengqian Hang, Washington State University, Pullman, WA, USA, To Chiu, Washington State University, Pullman, WA, USA, Jeanene Deavilla, Washington State University, Pullman, WA, USA, Ines Hanrahan, Tree Fruit Research Commission, Wenatchee, WA, USA, Zi Hua, Washington State University, Pullman, WA, USA, Manoella Mendoza, Washington Tree Fruit Commission, Wenatchee, WA, USA, Xiaoye Shen, Washington State University, Pullman, WA, USA

P1-175 Validating Sanitizer Interventions in Apple Dump Tanks to Control *Listeria monocytogenes* with *Enterococcus faecium* NRRL B-2354 – **Edmund Larbi Afari**, Washington State University, Pullman, WA, USA, Yuan Su, Washington State University, Pullman, WA, USA, Jeanene Marie Deavila, Washington State University, Pullman, WA, USA Stuart Goatley, Washington Tree Fruit Research Commission, Pullman, WA, USA, Mengqian Hang, Washington State University, Pullman, WA, USA, Ines Hanrahan, Tree Fruit Research Commission, Wenatchee, WA, USA, Zi Hua, Washington State University, Pullman, WA, Manoella Mendoza, Washington Tree Fruit Commission, Wenatchee, WA, USA

P1-176 Colonization and Internalization of *Salmonella* in Peach Fruit – **Kellie Burris**, US FDA, Raleigh, NC, USA, Sierra Begley, US FDA, Raleigh, NC, USA, Rebecca Bell, US FDA, College Park, MD, USA, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Olivia Dagenhart, US FDA, Raleigh, NC, USA, Christina M. Ferreira, US FDA, College Park, MD, USA, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA, Elizabeth Reed, FDA-HFP, College Park, MD, USA

P1-177 An Investigation of *Salmonella* Africana and Braenderup Infections Linked to Cucumbers from Southeast Florida – USA, 2024 – **Natalie Cataldo**, FDA CORE, College Park, MD, USA, Zachary Ellison, Applied Science, Research, & Technology, Inc. (ASRT), Atlanta, GA, USA, Laura Gieraltowski, Centers for Disease Control and Prevention, Atlanta, GA, USA, Bria Graham-Glover, FDA, College Park, MD, USA, Stranjae Ivory, FDA, College Park, MD, USA, Temesgen Jemaneh, FDA, College Park, MD, USA, Autumn Kraft, FDA, College Park, MD, USA, Margaret Kirchner, FDA CORE, College Park, MD, USA

P1-178 Pulsed Light and Cold Plasma Synergistically Inactivates *E. coli* in Lettuce – **Sudarsan Mukhopadhyay**, Microbial Food Safety Grp., USDA-ARS, Wyndmoor, PA, USA, Brendan Niemira, USDA-ARS, Wyndmoor, PA, USA, Modesto Olanya, USDA-ARS, Wyndmoor, PA, USA

P1-179 *Listeria* spp. Prevalence on Food Contact Surfaces in Cherry Packinghouses – **Swapnika Medikonda**, Washington State University - Irrigated Agriculture Research and Extension Center, Prosser, WA, USA, Claire Murphy, Washington State University, Prosser, WA, USA, Miriam Ruiz, Washington State University - Irrigated Agriculture Research and Extension Center, Prosser, WA, USA

P1-180 Effect of Fungicides and/or Latex on Chlorine-Based Disinfectants in Post-Harvest Papaya Wash-Water, and Pathogen Persistence – **Mohammad Alam**, CFSAN/FDA, Laurel, MD, USA, John Grocholl, FDA, HFP, Laurel, MD, USA, Alyssa Hall, Human Foods Program, Laurel, MD, USA, Chiun-Kang Hsu, OARSA/CFSAN/FDA, University Park, MD, USA, Bijay Khajanchi, US FDA, Laurel, MD, USA

P1-181 STEC Genomic Diversity within Lettuce Research Plots in the U.S. Southwest – **Ai Kataoka**, FDA CFSAN, College Park, MD, USA, Rebecca Bell, U.S. FDA, College Park, MD, USA, Natalie Brassill, University of Arizona, Maricopa, AZ, USA, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Gopal Gopinath, FDA, College Park, MD, USA, Roberto Guzman, FDA-CFSAN, Bowie, MD, USA, Julie Ann Kase, FDA/HFP, College Park, MD, USA, Susan Leonard, U.S. FDA, Laurel, MD, USA

P1-182 Assessing the Microbiological Safety of Leafy Greens: Insights from Farmers Markets and Grocery Stores in Edmond, Oklahoma – **Bhuvaneswari Pothuraju**, University of Central Oklahoma, Edmond, OK, USA, Tejasree Bokkasam, University of Central Oklahoma, Edmond, OK, USA, Kanika Bhargava, University of Central Oklahoma, Edmond, OK, USA, Priyanka Gupta, University of Central Oklahoma, Edmond, OK, USA, Hari Shankar Kotturi, University of Central Oklahoma, Edmond, OK, USA

P1-183 Colonization Potential of *Salmonella* Newport on Bulb Onions when Grown in Spiked Soil in Controlled Environment Agriculture – **Bijay Khajanchi**, US FDA, Laurel, MD, USA, John Grocholl, FDA, HFP, Laurel, MD, USA, Stephen Huges, FDA, Laurel, MD, USA

P1-184 Assessing the Efficacy of Ascaroside #18 Treatment in the Control of *Escherichia coli* O157:H7 in Spinach at Harvest and Post-Harvest Stages – **Myung-Ji Kim**, University of Georgia, Griffin, GA, USA, Jinru Chen, Department of Food Science and Technology, The University of Georgia, Griffin, GA, USA, Xueyan Hu, University of Georgia, Griffin, GA, USA, Murli Manohar, Ascribe Bioscience, Ithaca, NY, USA, Viktor Tishchenko, University of Georgia, Griffin, GA, USA

P1-185 Triple-Wash with Peroxyacetic Acid Can Reduce Pathogenic Bacteria on Cantaloupe Surfaces – **Md Shafiul Islam Rion**, West Virginia University, Morgantown, WV, USA, Coe Corey, West Virginia University, Morgantown, WV, USA, Annette Freshour, West Virginia University, Morgantown, WV, USA, Gary Freshour, West Virginia University, Morgantown, WV, USA, Jacek Jaczynski, West Virginia University, Morgantown, WV, USA, Carly Long, West Virginia University, Morgantown, WV, USA, Kristen Matak, West Virginia University, Morgantown, WV, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA

P1-186 Plasma Activated Water-Mediated Inactivation of *E. coli* K12 in Lettuce Wash Tank Water with High Suspended Organic Matter – Brendan Niemira, USDA-ARS, Wyndmoor, PA, USA, Daniela Bermudez-Aguirre, USDA ARS ERRC, Wyndmoor, PA, USA, Jasmine Smalls, USDA-ARS, ERRC, Wyndmoor, PA, USA

P1-187 Comparison of Temperature and Humidity from 2001, 2012, and 2023 in the Survival of *Escherichia coli* O157:H7 in Romaine Lettuce (*Latuca* Sativa) from California and Texas – **Angela Walla**, Texas Tech University, Lubbock, TX, USA, Ronny Barrera, Texas Tech University, Lubbock, TX, USA

P1-188 Investigating the Physical and Microbial Quality of Pea Microgreens Enriched with Probiotics – **Danhui Wang**, Texas Woman's University, Denton, TX, USA, Albertine McGill, Texas Woman's University, Denton, TX, USA, Victoria Montalvo, Texas Woman's University, Denton, TX, USA

P1-189 Ozone-Based Treatments for Inactivating Shiga Toxin-Producing *Escherichia coli* O157:H7 on Alfalfa Seeds – **Mostafa Ali**, The Ohio State University, Columbus, OH, USA, Ahmed Abdelhamid, Michigan State University, East Lansing, MI, USA, Ahmed Yousef, The Ohio State University, Columbus, OH, USA

P1-190 Measuring Cross-Contamination during Mechanical Blueberry Harvest and the Impact of Cleaning and Sanitizing – **Samantha Kilgore**, Oregon State University, Portland, OR, USA, Amanda Davis, Oregon State University, Aurora, OR, USA, Jovana Kovacevic, Oregon State University, Portland, OR, USA, Scott Lukas, Oregon State University, Aurora, OR, USA, Roxana Navarro, Oregon State University, Corvallis, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA

P1-191 Validation of Sanitizer Concentration to Reduce Cross-Contamination Risk during Washing of Apples – **Kevin Tarwa**, University of Maryland, College Park, MD, USA, Rohan Tikekar, University of Maryland, College Park, MD, USA

POSTER SESSIONS

P1-192 Survival of *Listeria monocytogenes*, *Escherichia coli* 0157:H7 and *Salmonella enterica* on Work-in-Process (WIP) Fresh-Cut Red Cabbage – **Nirosha Amarasekara**, USDA, Wyndmoor, PA, USA, Xuetong Fan, USDA-ARS, Wyndmoor, PA, USA, Joshua Gurtler, USDA-ARS, Wyndmoor, PA, USA, Deepak Subedi, USDA, Wyndmoor, PA, USA, Bryan Vinyard, USDA, Wyndmoor, PA, USA

P1-193 Reduction of Norovirus on Tomatoes in an Overhead Spray and Brush Roller System – **Ashtyn Vandiver**, University of Florida, Lake Alfred, FL, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA

P1-194 *Escherichia coli* Transfer onto and Internalization into Grapefruit Dropped on Florida Sandy Soils – **Claudia Pegueros Valencia**, University of Florida, Lake Alfred, FL, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA

P1-195 WITHDRAWN

P1-196 Influence of Synthetic and Organic Nutrient Fertilizers on the Survival and Persistence of *Escherichia coli* in NFT Hydroponics Systems during Mint Production – **Victor Akao**, Florida Agricultural and Mechanical University, Tallahassee, FL, USA, Vijay Chhetri, Florida Agricultural and Mechanical University, Tallahassee, FL, USA, Janen Afef, Florida Agricultural and Mechanical University, Tallahassee, FL, USA, Edwin Duke, Florida Agricultural and Mechanical University, Tallahassee, FL, USA, Nana Nsiah Ababio, Florida Agricultural and Mechanical University, Tallahassee, FL, USA, Ari Patterson, Florida Agricultural and Mechanical University, Tallahassee, FL, USA

P1-197 Effectiveness of UV-C in Controlling Blueberry Spoilage by Botrytis Cinerea *Conidia* and *Hyphae* – **Makayla Bellino**, Oregon State University, Corvallis, OR, USA, Joy Waite-Cusic, Oregon State University, Corvallis, OR, USA, Qingyang Wang, Oregon State University, Corvallis, OR, USA

P1-198 Survival of *Listeria monocytogenes* on Frozen Banana, Cantaloupe and Sweet Corn – **Monica Osorio-Barahona**, Virginia Tech, Blacksburg, VA, USA, Joseph Eifert, Virginia Tech, Blacksburg, VA, USA, Laura Strawn, Virginia Tech, Blacksburg, VA, USA, Daniel Weller, CDC, University of Rochester and Virginia Tech, Decatur, GA, USA

P1-199 Efficacy of Post-Harvest Chemical Sanitizer Treatments on *Salmonella* Typhimurium in Hydroponically Grown Living Basil – **Fabien Matsiko**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Christopher Currey, Iowa State University, Ames, IA, USA, Catherine Simpson, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, USA, Leslie Thompson, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA, Angela Walla, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA

P1-200 Survival of *Salmonella* and *Listeria monocytogenes* on Five Packinghouse Food Contact Surfaces – **Marcela Silva**, Virginia Tech, Blacksburg, VA, USA, Alexis Hamilton, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Claire Murphy, Washington State University, Prosser, WA, USA, Laura Strawn, Virginia Tech, Blacksburg, VA, USA

P1-201 Evaluating Wastewater Sequencing Methods in Food Safety Surveillance – **Kathryn Judy**, US FDA, College Park, MD, USA, Christopher Grim, US FDA, College Park, MD, USA, Maria Hoffmann, US FDA, Washington, D.C., USA, Padmini Ramachandran, US FDA, College Park, MD, USA, Amanda Windsor, US FDA, College Park, MD, USA

P1-202 Evaluation of Indicator Bacteria Concentration in Different Holding Times – **Xiaohong Wei**, UC Davis, Davis, CA, USA, Edward Atwill, School of Veterinary Medicine, UC Davis-Davis, CA, USA, Ronald Bond, UC Davis, Davis, CA, USA, Katie Lee, School of Veterinary Medicine, UC Davis-Davis, CA, USA, Melissa Partyka, Auburn University, Auburn, AL, USA

P1-203 Risk Ranking of Pre-Harvest Agricultural Water Assessment Factors by Academia and Industry – **Alyssa Rosenbaum**, University of Arizona, Maricopa, AZ, USA, Natalie Brassill, University of Arizona, Maricopa, AZ, USA, Channah Rock, University of Arizona, Maricopa, AZ, USA

P1-204 Characterization of Multiserovar *Salmonella* Populations Recovered from Two Rivers in Ecuador – **Carlos David Ayala Velastegui**, University of Georgia, Athens, GA, USA, Nikki Shariat, University of Georgia, Athens, GA, USA, Jared C. Smith, University of Georgia, Athens, GA, USA, Christian Vinueza-Burgos, Universidad Central del Ecuador, Quito, Ecuador

P1-205 Rapid Detection of *Salmonella* spp. in Water Samples by Real-Time PCR – **Sophie Pierre**, Bio-Rad Laboratories, Marnes-la-Coquette, France, Astrid Cariou, Bio-Rad Laboratories, Marnes-la-Coquette, France, Virginie Forestier, Bio-Rad Laboratories, Marnes-la-Coquette, France, Richard Prudent, Bio-Rad Laboratories, Marnes-la-Coquette, France

P1-206 Evaluating Treatment Effects on Harvested Rainwater Quality on a Peri-Urban Farm in Upper Marlboro, Maryland – **Emily Woerner,** University of Maryland, College Park, MD, USA, Adib Adnan, USDA, ARS, Beltsville, MD, USA, Nick An, University of Maryland, College Park, MD, USA, Brienna Anderson-Coughlin, University of Maryland, Elkton, MD, USA, Claire Barlow, University of Maryland, College Park, MD, USA, Alexander Choiniere, University of Maryland, College Park, MD, USA, Cheryl East, USDA-ARS, Beltsville, MD, USA, Hana Fisaha, University of Maryland, College Park, MD, USA

P1-207 Removal and Inhibition of Viruses and Protozoa from Agricultural Water by Mycoremediation with a Complex Filter Matrix – **Alexis Omar**, University of Delaware, Newark, DE, USA, Anastasia Chirnside, University of Delaware, Newark, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA, Kyle McCaughan, University of Delaware, Newark, DE, USA, Manan Sharma, USDA/ARS, Beltsville, MD, USA

P1-208 Encapsulated Postbiotics of *Bifidobacterium lactis* BPL1 Applied to Enhance Microbiological Quality in Pork Meat – **Maria Teresa Jimenez Munguia**, Universidad De Las Americas Puebla, San Andres Cholula, Puebla, Mexico, Aurelio López-Malo, Universidad de las Americas Puebla, San Andres Cholula, Puebla, México, Emma Mani-López, Universidad de las Americas Puebla, San Andres Cholula, Puebla, México Victor E. Vera-Santander, Universidad de las Americas Puebla, San Andres Cholula, Puebla, México

P1-209 Utilization of Biochar in Removing Nano-Microplastic from Food and Agricultural Water – **Ruogu Tang**, University of Delaware, Newark, DE, USA, Juzhong Tan, University of Delaware, Newark, DE, USA, Changqing Wu, University of Delaware, Newark, DE, USA

P1-210 Utilization of Biochars in the Treatment of Emerging Contaminants in Food and Agricultural Water Sources – **Ruogu Tang**, University of Delaware, Newark, DE, USA, Juzhong Tan, University of Delaware, Newark, DE, USA

P1-211 Evaluation of the Microbial and Physiochemical Quality of Water and Pecan Nutmeat in a Processing Float System – **Cameron Bardsley**, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Kaicie Chasteen-Ko, USDA-ARS, SE Fruit and Tree Nut Research Station, Byron, GA, USA, Brendan Niemira, USDA-ARS, Wyndmoor, PA, USA, David Shapiro-Ilan, USDA-ARS SE Fruit and Tree Nut Research Station, Byron, GA, USA, Samantha Sherman, USDA-ARS SE Fruit and Tree Nut Research Station, Byron, GA, USA

P1-212 Free Chlorine and Pecan Shell Interaction Influence *Salmonella* Contamination on Pecan Nut Meat in a Simulated Float System – **Kaicie Chasteen-Ko**, USDA-ARS, SE Fruit and Tree Nut Research Station, Byron, GA, USA, Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Brendan Niemira, USDA-ARS, Wyndmoor, PA, USA, David Shapiro-Ilan, USDA-ARS SE Fruit and Tree Nut Research Station, Byron, GA, USA, Samantha Sherman, USDA-ARS SE Fruit and Tree Nut Research Station, Byron, GA, USA

P1-213 Lytic Bacteriophage and Zero-Valent Iron Sand Filtration interventions Reduce *Salmonella infantis* Levels in Surface Water – **Zirui Ray Xiong**, USDA-ARS, Beltsville, MD, USA, Adib Adnan, USDA-ARS, Beltsville, MD, USA, Mary Theresa Callahan, Intralytix, Inc., Columbia, MD, USA, Cheryl East, USDA-ARS, Beltsville, MD, USA, Alan Gutierrez, Kalmia Kniel, University of Delaware, Newark, DE, USA, Manan Sharma, USDA-ARS, Beltsville, MD, USA, Tyliah Swann, Virginia State University, Petersburg, VA, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P1-214 High Diversity and Widespread Distribution of Bacterial Pathogens in an Integrated Landscape Watershed – **Magaly Toro**, University of Maryland, JIFSAN, College Park, MD, USA, Sebastian Gutierrez, University of Chile, Santiago, Metropolitana, Chile, Zhao Chen, Joint Institute for Food Safety and Applied Nutrition, College Park, MD, USA, Paola Navarrete, University of Chile, INTA, Santiago, Metropolitana, Chile Angelica Reyes, Universidad De Chile, Santiago, Chile

P1-215 Microbial Source Tracking and Pathogen Surveillance of Agricultural Water – **Gabriella Strocko**, University of Delaware, Columbia, MD, USA, Brenna DeRocili, University of Delaware, Newark, DE, USA, Jennifer Jones, University of Delaware, Newark, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA, Kyle McCaughan, University of Delaware, Newark, DE, USA, Alexis Omar, University of Delaware, Newark, DE, USA

P1-216 *Salmonella* Persistence in Surface Water and Impact of Rainfall on Serovar Complexity – **Esther Palmer**, University of Georgia, Athens, GA, USA, Nikki Shariat, University of Georgia, Athens, GA, USA, Jared Smith, University of Georgia, Athens, GA, USA

TUESDAY, JULY 29

8:30 a.m. – 6:30 p.m.

P2 **Poster Session 2 – Animal and Pet Food Safety, Communication, Outreach and Education, Food Defense, Food Fraud, Food Law and Regulation, Food Processing Technologies, Laboratory and Detection Methods, Pre-Harvest Food Safety, Retail and Food Service Safety, Sanitation and Hygiene, Seafood, and Viruses and Parasites**

Exhibit Hall

P2-01 through P2-132 – Authors present 10:00 a.m. – 11:30 a.m. and 5:15 p.m. – 6:15 p.m.

P2-133 through P2-225 – Authors present 2:15 p.m. – 3:45 p.m. and 5:15 p.m. – 6:15 p.m.

P2-01 Bone Appetit: Assessing Pet Diet Choice and Food-Handling Practices of Dog and Cat Owners – **Melanie Firestone**, University of Minnesota School of Public Health, Minneapolis, MN, USA, Jeffrey Bender, University of Minnesota, Minneapolis, MN, USA, Julie Churchill, University of Minnesota, St. Paul, MN, USA, Andrea Grzybowski, University of Minnesota, Minneapolis, MN, USA, Devon Ueda, University of Minnesota, St. Paul, MN, USA

P2-02 Impact of Brining and Dry Salting on the Survival of *Salmonella* spp. and *Listeria monocytogenes* on Inoculated Sugar Kelp (*Saccharina* Latissima) during Refrigerated and Ambient Storage – **Jennifer Perry**, University of Maine, Orono, ME, USA, Richa Arya, University of Maine, Orono, ME, USA, Denise Skonberg, University of Maine, Orono, ME, USA

P2-03 Companion Animals as Reservoirs of Multidrug-Resistant *Salmonella* and Their Impact on Food Safety and Public Health – **Golam Faisal**, University of Kentucky, Lexington, KY, USA, Tasmia Habib, University of Kentucky, Lexington, KY, USA, Yosra Helmy, University of Kentucky, Lexington, KY, USA, Ajran Kabir, University of Kentucky, Lexington, KY, USA, Bibek Lamichhane, University of Kentucky, Lexington, KY, USA, Rosbelly Rios, University of Kentucky, Lexington, KY, USA

P2-04 An Evaluation of Vitamin D, Copper, and Microbial Contaminants in Dog Food and Treats – **Sana Mujahid**, Consumer Reports, Yonkers, NY, USA, Eric Boring, Consumer Reports, Yonkers, NY, USA, James Rogers, Consumer Reports, Yonkers, NY, USA

P2-05 Impact of Vinegar-Based Antimicrobial Solution on Spoilage Microorganisms in Mechanically Separated Chicken Used for Pet Food – **Jasmine Kataria**, Kerry, Beloit, WI, USA, Jyoti Aryal, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P2-06 Validation of Rawhide and Pig Ear Pet Treats for the Detection of *Salmonella* Using Hygiena's Bax® System – **Julie Weller**, Hygiena, New Castle, DE, USA, Christine Chapman, Hygiena, New Castle, DE, USA, Margaret Morris, Hygiena, New Castle, DE, USA

P2-07 Matrix Validation of Refrigerated, Cooked Pet Food for the Detection of *Salmonella* and *Listeria* Using Hygiena's Bax® System Real-Time PCR Assay – **Julie Weller**, Hygiena, New Castle, DE, USA, Deja Latney, Hygiena/Qualicon, New Castle, DE, USA

P2-08 Matrix Validation of 375 G of Frozen Waffles for the Detection of *Listeria* Using Hygiena's Bax® System Real-Time PCR Assay – **Julie Weller**, Hygiena, New Castle, DE, USA, Christine Chapman, Hygiena, New Castle, DE, USA

P2-09 Validation of the Gene-Up® *Salmonella* Method for the Detection of *Salmonella* spp. in Human Grade Pet Food – **John Mills**, bioMérieux, Inc., Fenton, MO, USA, Samoa Asigau, bioMérieux, Inc., Hazelwood, MO, USA, Amy Bosco, Cargill, Fogelsville, PA, USA, Jessica Brown, Cargill Protein, Mason City, IA, USA, Jada Jackson, bioMérieux, Hazelwood, MO, USA, Nikki Taylor, bioMérieux, Inc., Hazelwood, MO, USA

P2-10 Comparison of UVM, MOPS-BLEB and LPT Enrichment Broth in Testing *L. monocytogenes* in Ready-to-Eat (RTE) Foods and Liquid Whole Eggs – **John Mills**, bioMérieux, Inc., Fenton, MO, USA, Samoa Asigau, bioMérieux, Inc., Hazelwood, MO, USA, Jada Jackson, bioMérieux, Inc., Hazelwood, MO, USA, Nikki Taylor, bioMérieux, Inc., Hazelwood, MO, USA

P2-11 Needs Assessment for a New 4-H Food Science and Safety Curriculum – **Shannon Coleman**, Louisiana State University, Baton Rouge, LA, USA, Sarah Al-Mazroa Smith, Iowa State University, Ames, IA, USA, Amarat Simonne, University of Florida, Gainesville, FL, USA, Kristina Tank, Iowa State University, Ames, IA, USA

P2-12 Outbreaks Linked to Country Foods in Canada's Northern Communities – **Abhinand Thaivalappil**, Public Health Agency of Canada, Guelph, Ontario, Canada, Austyn Baumeister, Public Health Agency of Canada, Guelph, Ontario, Canada, Mavra Qamar, Public Health Agency of Canada, Guelph, ON, Canada, Melanie Sterian, Public Health Agency of Canada, Guelph, Ontario, Canada, Lisa Waddell, Public Health Agency of Canada, Guelph, Ontario, Canada

P2-13 Unpacking Poisoned: Evaluating a Food Safety Documentary on Young Adults' Trust and Perception – **Fanny Gozzi**, Purdue University, West Lafayette, IN, USA, Shams Adigozalzade, Purdue University, West Lafayette, IN, USA, Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA

P2-14 Survey of Consumers' Knowledge of Microbial Food Safety Regarding Meat and Poultry Products Purchased at Local West Virginia Farmers' Market – **Gary Freshour**, West Virginia University, Morgantown, WV, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA, Jacek Jaczynski, West Virginia University, Morgantown, WV, USA, Lisa Jones, West Virginia University, Morgantown, WV, USA, Hanna Khouryieh, Western Kentucky University, Bowling Green, KY, USA, Kristen Matak, West Virginia University, Morgantown, WV, USA, Yifan Zhang, Wayne State University, Detroit, MI, USA

P2-15 Using the Delphi Method to Develop an Introductory-Level Higher Education Food Safety Auditor, Inspector, and Assessor Course Outline – **Janet Buffer**, The George Washington University, Howard, OH, USA, Nicole Arnold, The Ohio State University, Columbus, OH, USA, Jessica Badour, FMI, Arlington, VA, USA, Stephanie Cotter, North Carolina State University, Raleigh, NC, USA, Natyra Hertica, The George Washington University, Washington, D.C., USA, Barbara Kowalcyk, The George Washington University, Washington, D.C., Clint Stevenson, North Carolina State University, Raleigh, NC, USA

P2-16 What Does 'Ready-to-Eat' Really Mean? Exploring Definitions, Practices, and Food Safety Perspectives across the Supply Chain – **Suyapa Fabiola Rojas Oropel**, Purdue University, West Lafayette, IN, USA, Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA, Elma Kontor-Manu, Purdue University, West Lafayette, IN, USA

P2-17 A Systematic Review of Hand Hygiene Knowledge, Attitudes, Self-Reported Practices, and Observed Behaviour in Food Manufacturing and Food Service Settings – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Rana Kebbi, Zero2Five Food Industry Centre, Cardiff Metropolitan University, Cardiff, Wales, UK, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, David Lloyd, Cardiff Metropolitan University, Cardiff, Wales, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK

POSTER SESSIONS

P2-18 The Development and Evaluation of a Food Safety Training Program for Frontline Employees – **Charisse Bautista**, North Carolina State University, Raleigh, NC, USA, Michael Conroy, North Carolina State University, Raleigh, NC, USA, Lynette Johnston, North Carolina State University, Cary, NC, USA, Kathleen Nicholas, North Carolina State University, Raleigh, NC, USA, Elena Rogers, North Carolina State University, Raleigh, NC, USA, Natasha Sessoms, North Carolina State University, Raleigh, NC, USA

P2-19 A Review of Food Safety Risks in Aquaponics Systems: Identifying Pathogen Sources and Contamination Challenges – **Lorena Correia**, Purdue University, West Lafayette, IN, USA, Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA

P2-20 Micro Agricultural Systems: The Changing Landscape of Specialty Crop Production and Produce Safety – **Sarah Bakker**, University of Arkansas Division of Agriculture Cooperative Extension Service, Little Rock, AR, USA, David Hill, University of Arkansas Division of Agriculture, Little Rock, AR, USA, Amanda Philyaw Perez, University of Arkansas, Little Rock, AR, USA

P2-21 Micro Agricultural Systems: The Changing Landscape of Food Freedom and Value-Added Food Production – **David Hill**, University of Arkansas Division of Agriculture, Little Rock, AR, USA, Amanda Philyaw Perez, University of Arkansas, Little Rock, AR, USA

P2-22 Development of Produce Safety Educational Material for Small Beginning Underrepresented and Underserved Farmers – **Armitra Jackson-Davis**, Alabama A&M University, Madison, AL, USA, Madison, Philip Bwalya, Alabama A&M University, Huntsville, AL, USA, Shannon Coleman, Louisiana State University, Baton Rouge, LA, USA, Joy Dean, University of Arkansas-Pine Bluff, Pine Bluff, AR, USA, Lavelle Hendricks, Texas A&M University-Commerce, Commerce, TX, USA, Salim Mugabo, Alabama A&M University, Hunstville, AL, USA, Vanessa Njoku, Alabama A&M University, Hunstville, AL, USA, Karyn RoseKaryn Rose, Alabama A&M University, Hunstville, AL, USA

P2-23 Food Safety Attributes Associated with Cereals, Legumes, and Condiments in Urban and Peri-Urban Households in Benin, Ghana, and Nigeria – **Titilayo Falade**, International Institute of Tropical Agriculture, Ibadan, Nigeria, Taiwo Adesina, IITA, Ibadan, Select Region, Nigeria, Kolawole Banwo, University of Ibadan, Oyo State, Ibadan, Oyo, Nigeria

P2-24 Evaluating a Hybrid Approach to Preventive Controls for Human Food Education for Small Processors in Virginia – **Chrissy Walsky**, Virginia Tech, Blacksburg, VA, USA, Jennifer Acuff, University of Arkansas, Fayetteville, AR, USA, Kaitlyn Casulli, University of Georgia, Athens, GA, USA, Tiffany Drape, Virginia Tech, Blacksburg, VA, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, Joell Eifert, Virginia Tech, Blacksburg, VA, USA, Alexis Hamilton, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Lynette Johnston, North Carolina State University, Cary, NC, USA

P2-25 Florida's Extension Programs Prepare Produce Growers for Produce Safety Rule inspection – **Clara Diekman**, University of Florida, Lake Alfred, FL, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA, Billy Mitchell, University of Florida, Gainesville, FL, USA, Taylor O'Bannon, University of Florida IFAS, Lake Alfred, FL, USA, Chelsea Peebles, Dept. of Ag. Consumer Services, Bartow, FL, USA, Kirby Quam, Florida Dept. of Ag. - FDA, Bartow, FL, USA, Keith Schneider, University of Florida, Gainesville, FL, USA, Renee Goodrich Schneider, University of Florida, Gainesville, FL, USA

P2-26 Assessing the Southern Regional for FSMA Food Safety Training and Outreach Impacts – **Peggy Geren**, University of Florida, Lake Alfred, FL, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Matt Benge, University of Florida, Gainesville, FL, USA, Chad Carter, Clemson University, Charleston, SC, USA, Alejandro Castillo, Texas A&M University, College Station, TX, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, Laurel Dunn, University of Georgia, Athens, GA, Armitra Jackson-Davis, Alabama A&M University, AL, USA

P2-27 Effect of Salt Concentration and Pepper Variety on Microbial Population Increases and pH Reduction during Pepper Mash Fermentation – **Catherine Nettles Cutter**, Penn State University, University Park, PA, USA, Jasmine Williams, The Penn State University, University Park, PA, USA, Luke LaBorde, Penn State University, University Park, PA, USA

P2-28 Packed with Protein or Pathogens? Assessment of Protein Composition and Food Safety Communication in Commercial Meal-Kits – **Alicyn Dickman**, The Ohio State University, Columbus, OH, USA, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, Sanja Ilic, The Ohio State University, Columbus, OH, USA, Naomi Melville, Cardiff Metropolitan University, Cardiff, UK

P2-29 "I've Never Considered Myself High Risk": Defining and Communicating Susceptibility to Foodborne Illness – **Alicyn Dickman**, The Ohio State University, Columbus, OH, USA, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, Sanja Ilic, The Ohio State University, Columbus, OH, USA

P2-30 Cultural Influences and Barriers in Adopting Food Safety Practices: A Case Study of Hmong Farmers – **Pei Liu**, University of Missouri-Columbia, Columbia, MO, USA, Touria Eaton, Lincoln University, Jefferson City, NE, USA, Annalisa Hultberg, University of Minnesota Extension, Farmington, MN, USA

P2-31 Examining Illness Reporting in Foodservice Employees – **Pei Liu**, University of Missouri-Columbia, Columbia, MO, USA, Yee Ming Lee, Auburn University, Auburn, AL, USA

P2-32 Assessing Food Safety Knowledge Gaps among USA Indoor Growers – **Camila Rodrigues**, Auburn University, Auburn, AL, USA, Rebecca Catalena, Auburn University, Auburn, AL, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, Rhuanito Ferrarezi, University of Georgia, Athens, GA, USA, Armitra Jackson-Davis, Alabama A&M University, Huntsville, AL, USA, Tuany Volz, Auburn University, Auburn, AL, USA

P2-33 Evaluation of an Automated DNA Extraction Protocol and Reduced Enrichment Times for the Detection of *Salmonella* or STEC in a Variety of Matrices – **Patrick Bird**, bioMérieux, Inc., West Chester, OH, USA, Samoa Asigau, bioMérieux, Inc., Hazelwood, MO, USA, Jada Jackson, bioMérieux, Inc., Hazelwood, MO, USA, Michelle Keener, bioMérieux, Hazelwood, MO, USA, John Mills, bioMérieux, Inc., Fenton, MO, USA, Nikki Taylor, bioMérieux, Inc., Hazelwood, MO, USA

P2-34 A Study to Determine the Barriers and Impact of Operating Effective Internal Systems Audits of Food Safety Culture within Wales's Food and Drink Manufacturing Sector – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Heather Curwen, Cardiff Metropolitan University, Cardiff, Wales, UK, Alison Lloyd-Thomas, Cardiff Metropolitan Univeristy, Cardiff, Wales, UK

P2-35 UK Meal-Kits and Food Safety: Investigating Temperature Control from Delivery to Plate – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Naomi Melville, Cardiff Metropolitan University, Cardiff, UK, Joseph Baldwin, Cardiff Metropolitan University, Cardiff, UK, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, David Lloyd, Cardiff Metropolitan University, Cardiff, Wales, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK

P2-36 Evaluating the Accuracy of ChatGPT 4.0 in Answering Consumer Food Safety Questions: The Impact of Prompt Design on Reliability – **Lorena Correia**, Purdue University, West Lafayette, IN, USA, Yaohua Betty Feng, Purdue University, West Lafayette, IN, USA

P2-37 Single-Laboratory Validation (SLV) Study of a Real-Time PCR Method for the Detection of *Salmonella* in Soil with Improved Automated DNA Extraction Methods on Three Real-Time PCR Systems – **Anna Maounounen-Laasri**, US FDA/CFSAN, College Park, MD, USA, Hua Wang, US FDA, College Park, MD, USA, Rachel Binet, US FDA, College Park, MD, USA, Elizabeth Reed, FDA-HFP, College Park, MD, USA, Jie Zheng, US FDA, College Park, MD, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P2-38 Persistence of Human Norovirus and Its Surrogates in Vomitus – **Mariya Julien**, Université Laval, Québec, Canada, Valérie Goulet Beaulieu, Laval University, Québec, Canada, Julie Jean, Universite Laval, Québec, QC, Canada Éric Jubinville, Laval University, Québec, Canada, Albane Le Couteulx, Laval University, Québec, Canada

P2-39 Utilising the Capability, Opportunity, and Motivation (Com-B) Model of Behavior to Identify Barriers and Facilitators for a Robust Food Safety Culture – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK, Sharon Birkett, OSI Group, LLC, Aurora, IL, USA, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, Wales, UK, Alys Harrop, ZERO2FIVE Food Industry Centre, Cardiff Metropolitan University, Cardiff, Wales, UK, Emma Samuel, ZERO2FIVE Food and Drink Research Unit, Cardiff Metropolitan University, Cardiff, Wales, UK

P2-40 WITHDRAWN

P2-41 Nourishing with Care: Safe Food-Handling Knowledge and Behaviors of Virginian Caregivers of Children under Five – **H. Lester Schonberger**, Virginia Tech, Blacksburg, VA, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA, Lauren Maghak, Virginia Tech, Blacksburg, VA, USA

P2-42 Survival of Norovirus and *Escherichia coli* in Pre-Harvest Agricultural Water – **Nuradeen Garba Yusuf**, University of Florida, Gainesville, FL, USA, Naim Montazeri, University of Florida, Gainesville, FL, USA

P2-43 Ensuring Seafood Safety: A Novel Recombinase Aided Amplification (RAA) Coupled with CRISPR/Cas12a for Authentication of Commercially Important Pacific Oyster – **Gururaj Moorthy**, Prince of Songkla University, Hat Yai, Songkhla, Thailand, Soottawat Benjakul, Prince of Songkla University, Hat Yai, Songkhla, Thailand, Jirakrit Saetang, Prince of Songkla University, Hat Yai, Thailand

P2-44 Prevalence of Adulteration of Groundnut Paste and Powdered Pepper Sold at Markets in the Greater Accra Region of Ghana – **Bennett Dzandu**, University of Ghana, Accra, Greater Accra, Ghana, Raphael Kpodo, University of Ghana, Accra, Greater Accra, Ghana, Esther Sakyi-Dawson, University of Ghana, Accra, Greater Accra, Ghana

P2-45 Assessing Hygiene Practices of Korean Fresh Produce Farms for the Implementation of FSMA Produce Safety Rule – **Ik-Jun Choi**, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ji Yoon Chang, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Hye-jin Kim, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea Dong-Gyu Lee, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Jeong-Eun Lee, Institute of Food Analysis Research Center, Korea Food Research Institute, Wanju, Jeollabuk-do, South Korea, Won-Bo Shim, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ho-Jin Song, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Hee-Kyeong YangHee-Kyeong Yang, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea

P2-46 The Effect of Water Activity and Fat Content on the Inactivation and Recovery of *Listeria* spp. in Dry-Cured and Dry-Fermented Ready-to-Eat (RTE) Meat Products After High Pressure Processing (HPP): A Review – **Yhuliana Nino**, University of Nebraska-Lincoln, Lincoln, NE, USA, Prashant Dahal, University of Nebraska-Lincoln, Lincoln, NE, USA, Mary-Grace Danao, University of Nebraska-Lincoln, Lincoln, NE, USA, Gary Sullivan, University of Nebraska-Lincoln, Lincoln, NE, USA, Bing Wang, University of Nebraska-Lincoln, Lincoln, NE, USA

P2-47 Use of Natural Antimicrobials to Inactivate *Salmonella* on In-Shell Pecans – **Hema Degala**, Fort Valley State University, Fort Valley, GA, USA, Sadia Afrin, Fort Valley State University, Fort Valley, GA, USA, Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Rabin Gyawali, Fort Valley State University, Fort Valley, GA, USA, Ajit Mahapatra, Fort Valley State University, Fort Valley, GA, USA

P2-48 Ionizing Radiation Energy Influences Inactivation of *Listeria monocytogenes* – **Suresh Pillai**, Texas A&M University, College Station, TX, USA, Isabella McGrath, Texas A&M University, Bryan, TX, USA, Chandni Praveen, Texas A&M University, College Station, TX, USA, Neha Wavare, Texas A&M University, College Station, TX, USA

P2-49 Inactivation of *Listeria monocytogenes* on Enoki Mushrooms Using a Sequential Peroxone and Gas Phase Hydroxyl Radical Process – **Amanda VanderVeen**, University of Guelph, Guelph, ON, Canada, Keith Warriner, University of Guelph, Guelph, ON, Canada, Mahdiyeh Hasani, University of Guelph, Guelph, ON, Canada, Lara Warriner, Canadian Research Institute for Food Safety (CRIFS), University of Guelph, Guelph, ON, Canada, Kathryn Yip, University of Guelph, Guelph, ON, Canada

P2-50 Ensuring Safe and Nutritious Beetroot Blended Juice: Exploring Thermal and Non-Thermal Technologies for Longer Shelf Life – **Pratik Nayi**, National Pingtung University of Science and Technology, Neipu, Pingtung, Taiwan, Amee Ravani, Anand Agricultural University, Anand, India, Tabbu Theba, Anand Agricultural University, Anand, Gujarat, India

P2-51 Evaluation of a Pilot Scale UV-C System for the Inactivation of Pertinent Microorganisms in Plant-Based Beverages – **Jestin Bose**, Tennessee State University, Nashville, TN, USA, Jian Ken, Danone North America, Louisville, CO, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Nirmal Thirunavookarasu Sankaranarayanan, Tennessee State University, Nashville, TN, USA

P2-52 Effects of Plasma-Activated Microbubble Water (PAMW) Treatments on the Inactivation of *Escherichia coli* on Fresh Produce – **Fariha Meem**, University of Delaware, Newark, DE, USA, Juzhong Tan, University of Delaware, Newark, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA

P2-53 Reduction of Fermentation Duration of Cassava to Remove Hydrogen Cyanide – **Josiane Irakoze**, Curtin University, Perth, Western Australia, Australia, Jean Paul Hategekimana, University of Rwanda, Musanze, Northern Province, Rwanda, Elias Mugiraneza, University of Rwanda, Musanze, Northern Province, Rwanda, Eugene Niyonzima, Rwanda Agriculture and Animal Resources Development Board, Kigali, Kigali City, Rwanda

P2-54 Sugar Estimation Using Absorbance as an Alternative and Rapid Approach to Predicting Chemical Oxygen Demand (COD) in Produce Wash Water – **Kevin Tarwa**, University of Maryland, College Park, MD, USA, Rohan Tikekar, University of Maryland, College Park, MD, USA

P2-55: Identification of Peptide Biomarkers for Saltiness and Umami Taste Enhancement via *Bacillus* spp. Fermentation of Soy Flour and Oyster Extract – **Hye-jin Kim**, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ji Yoon Chang, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Jeong-Eun Lee, Institute of Food Analysis Research Center, Korea Food Research Institute, Wanju, Jeollabuk-do, South Korea Won-Bo Shim, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea

P2-56 Ohmic Heating on the Inactivation of *Clostridium sporogenes* in Green Bean Puree and Its Effect on the Sensory Attributes of the Puree – **Sudhir Sastry**, The Ohio State University, Columbus, OH, USA, Shyam Singh, University of California-Davis, Davis, CA, USA, Simons Christopher, The Ohio State University, Columbus, OH, USA, Omer Faruk Cokgezme, The Ohio State University, Columbus, OH, USA, Ashley Soldavini, The Ohio State University, Columbus, OH, USA, Ran Tao, The Ohio State University, Columbus, OH, USA

P2-57 Development of a Self-Sanitizing Surface Coating with Olive Pomace Extract to Reduce Surface Contamination in Food Processing Environment – **Qiao Ding**, University of California-Davis, Davis, CA, USA, Yoonbin Kim, University of California-Davis, Davis, CA, USA, Nitin Nitin, Department of Food Science and Technology, University of California-Davis, Davis, CA, USA

P2-58 Investigating the Impact of Sublethal Organic Peroxide or Alkaline Stress on *Salmonella* Thermotolerance in Raw, Ground Turkey – **Luke Brown**, Iowa State University, Ames, IA, USA, Daniel Unruh, Iowa State University, Ames, IA, USA

POSTER SESSIONS

P2-59 Evaluation of a Laboratory-Designed Dielectric Barrier Discharge Plasma System for *Listeria monocytogenes* Inactivation and Quality Preservation in Ready-to-Eat Cold-Smoked Salmon during 30-Day Refrigerated Storage – **Manikanta Sri Sai Kunisetty**, Alabama A&M University, Huntsville, AL, USA, Bhagirath Ghimire, Intecells, Inc, Troy, MI, USA, Armitra Jackson-Davis, Alabama A&M University, Huntsville, AL, USA, Lamin Kassama, Alabama A&M University, Normal, AL, USA, Srinivasa Rao Mentreddy, Alabama A&M University, Huntsville, AL, USA, Gabriel Xu, The University of Alabama in Huntsville, Huntsville, Al, USA

P2-60 UV-C as a Sustainable and Effective Solution for Microbial Inactivation of Plant-Based Beverages – **Aakash Sharma**, Dairy Farmers, El Dorado Springs, MO, USA, Jestin Bose, Tennessee State University, Nashville, TN, USA, Jian Ken, Danone North America, Louisville, CO, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Amritpal Singh, Tennessee State University, Nashville, TN, USA

P2-61 The Effects of Roasting Time and Defatting Methods on the Physicochemical Properties and Shelf Stability of Instant Groundnut Soup Powders – **Olaide Akintayo**, University of Ilorin, Ilorin, Kwara State, Nigeria, Fadilat Akintayo, University of Ilorin, Ilorin, Nigeria, Akeelah Aminu, University of Ilorin, Ilorin, Nigeria, Mutiat Balogun, University of Ilorin, Ilorin, Nigeria

P2-62 WITHDRAWN

P2-63 Evaluation of the Efficacy of UV-C (254 Nm) on *Listeria innocua* and Natural Microflora from Coffee Beans in Cold Brew Coffee – **Luke Shawn Thomas**, North Carolina State University, Raleigh, NC, USA, Zhujun Gao, North Carolina State University, Raleigh, NC, USA, Gabriel Keith Harris, North Carolina State University, Raleigh, NC, USA, Deepti Salvi, North Carolina State University, Raleigh, NC, USA

P2-64 Synergistic Effect of Mild Heat and Olive Pomace Extract for Inactivation of Biofilm from Food Contact Surfaces – **Shyam Singh**, University of California-Davis, Davis, CA, USA, Yoonbin Kim, University of California-Davis, Davis, CA, USA, Nitin Nitin, Department of Food Science and Technology, University of California-Davis, Davis, CA, USA

P2-65 Ohmic Heating inactivation of *Alicyclobacillus acidoterrestris* in Apple and Cranberry Juice – **Shyam Singh**, University of California-Davis, Davis, CA, USA, Mohamed Ali, The Ohio State University, Columbus, OH, USA, VM Balasubramaniam, The Ohio State University, Columbus, OH, USA, Omer Faruk Cokgezme, The Ohio State University, Columbus, OH, USA, Sudhir Sastry, The Ohio State University, Columbus, OH, USA, Ahmed Yousef, The Ohio State University, Columbus, OH, USA

P2-66 Development of a New Fermentation Method (Helenization) to Improve Food Safety in Fermented Vegetables – **Toby Yao**, The Ohio State University, Columbus, OH, USA, Yutong Li, The Ohio State University, Columbus, OH, USA, Hua Wang, The Ohio State University, Columbus, OH, USA

P2-67 What Is the Prevailing Food Safety Culture at a Hospital Catering? – **Lais Zanin**, University of São Paulo, Ribeirão Preto, Brazil, Letícia Fonseca, USP, Ribeirão Preto, SP, Brasil, Diogo da Cunha, State University of Campinas, Limeira, São Paulo, Brazil, Carolina Bottini Prates, Universidade Federal De São Paulo, São Paulo, Brazil, Elke Stedefeldt, Federal University of São Paulo, São Paulo, Brazil

P2-68 Comparative Efficacy of Hand-Wash Lather Times of 5 to 20 Seconds by an in Vivo Cross-Contamination Test Method – **James Arbogast**, JW Arbogast Advanced Science Consulting LLC, Akron, OH, USA, Chris Beausoleil, Nelson Labs, Bozeman, MT, USA, David Buckley, Diversey, Inc., Charlotte, NC, USA, Cade Comstock, Nelson Labs, Bozeman, MT, USA, Steven Lyon, Chick-fil-A, Inc., Bishop, GA, USA, James Marsden, RGF Environmental, West Palm Beach, FL, USA, Donald Schaffner, Rutgers University, New Brunswick, NJ, USA

P2-69 Lesson from the Studies of Microbial Ecology of Fermented Foods and Beverages – **Folarin Oguntoyinbo**, Appalachian State University, Boone, NC, USA, Adewale Obadina, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria

P2-70 Genetic Characterization of a *Cronobacter sakazakii* Strain from Parsley – **Irshad Sulaiman**, U.S. FDA, Atlanta, GA, USA, Kevin Karem, U.S. FDA, Atlanta, GA, USA, Nancy Miranda, U.S. FDA, Atlanta, GA, USA, Steven Simpson, U.S. FDA, Atlanta, GA, USA

P2-71 An Enrichment-Free Method for Quantifying *Salmonella* in Raw Chicken – **Joseph Capobianco**, USDA-ARS, Wyndmoor, PA, USA, Cheryl Armstrong, USDA-ARS, Wyndmoor, PA, USA, Javier Atencia, Pathotrak Llc, Bethesda, MD, USA, Chin-Yi Chen, USDA-ARS, Wyndmoor, PA, USA, Gretchen Dykes, USDA-ARS, Wyndmoor, PA, USA, Brice Froment, Bio-Rad Laboratories, Marnes-la-Coquette, France, Yiping He, USDA-ARS, Wyndmoor, PA, USA, Kathleen Johnson, USDA-ARS, Wyndmoor, PA, USA

P2-72 Assessment of ISO qPCR Method for Detecting *Campylobacter* in Surface Water – **Uma Babu**, US FDA, Laurel, MD, USA, Kannan Balan, US FDA - HFP, Laurel, MD, USA, Elmer Bigley, US FDA - HFP, Laurel, MD, USA, Kelli Hiett, US FDA - HFP, Laurel, MD, USA, Hyein Jang, US FDA - HFP, Laurel, MD, USA, Mark Mammel, US FDA, Laurel, MD, USA, Marion Pereira, US FDA - HFP, Laurel, MD, USA, Lisa Plemons, FDA, Laurel, MD, USA

P2-73 A Liquid Crystal-Based Test Kit for *Escherichia coli* O157 in Various Foods – **Shuang Wu**, Crystal Diagnostics, Rootstown, OH, USA, Salvatrice Maltempi, Crystal Diagnostics.com, Rootstown, OH, USA, Gary Niehaus, Northeast Ohio Medical University, Rootstown, OH, USA, Hilary Sullivan, Crystal Diagnostics.com, Rootstown, OH, USA, Noah Zink, Crystal Diagnostics, Rootstown, OH, USA

P2-74 Validation of *Salmonella* Recovery Using DEUF in Environmental Waters – **Anna Brover**, US FDA, College Park, MD, USA, Andrew Battin, US FDA, College Park, MD, USA, Rebecca Bell, US FDA, College Park, MD, USA, Christina M. Ferreira, US FDA, College Park, MD, USA, Qing Jin, FDA/CFSAN, Germantown, MD, USA, Kevin Lam, University of Maryland, College Park, MD, USA

P2-75 BACGene GO for *Salmonella* Detection from Food and Environmental Surfaces – **Laura Bleichner**, Gold Standard Diagnostics, Freiburg, Baden-Württemberg, Germany

P2-76 New Gram-Positive Lysis Buffer for the Isolation of *Listeria* DNA – **John Linneman**, MilliporeSigma, Saint Louis, MO, USA, Adam Didier, MilliporeSigma, Saint Louis, MO, USA, Emily Jacobs, MilliporeSigma, Bellevue, WA, USA, Andy Ravanelli, MilliporeSigma, Saint Louis, MO, USA, George Shen, MilliporeSigma, Bellevue, WA, USA, Nathan Zenser, MilliporeSigma, Saint Louis, MO, USA

P2-77 Enrichment-Free Detection and Discrimination of *Listeria* spp., *Listeria monocytogenes* and *Salmonella* spp. from Environmental Specimens Obtained by Standardized Sponge Collection – **Ben Katchman**, PathogenDx, Tucson, AZ, USA, Ihab Botros, PathogenDx, Tucson, AZ, USA, Mark Crawford, PathogenDx, Tucson, AZ, USA, Rick Eggers, PathogenDx, Tucson, AZ, USA, Michael Hogan, PathogenDx, Tucson, USA, Kevin O'Brien, PathogenDx, Tucson, AZ, USA, Fushi Wen, PathogenDx, Tucson, AZ,USA

P2-78 Evaluation of Next Generation Sequencing Assays for Detection of Bacterial Pathogens in Probiotic Products – **Isha Patel**, US FDA, Laurel, MD, USA, Jayanthi Gangiredla, US FDA, Laurel, MD, USA, Baback Gharizadeh, Chapter Diagnostics, Menlo Park, CA, USA, Mark Mammel, US FDA, Laurel, MD, USA, James Shelton, US FDA, Laurel, MD, USA, Carmen Tartera, US FDA, Laurel, MD, USA, Chunlin Wang, Chapter Diagnostics, Menlo Park, CA, USA

P2-79 WITHDRAWN

P2-80 AI-Enabled Imaging for Pathogen Detection under Stress Conditions: A Systematic Review – **MeiLi Papa**, Michigan State University, East Lansing, MI, USA, Gillian Kuehnle, Michigan State University, East Lansing, MI USA, Yoo Jung Oh, Michigan State University, East Lansing, MI, USA, Jiyoon Yi, Michigan State University, East Lansing, MI, USA

P2-81 Validation of QPCR Assays to Update BAM Chapter 4A for the Screening of *E. coli* O157 and Non-O157 STEC – **Antonio De Jesus**, US FDA, Humans Foods Program, Division of Food and Environmental Safety, College Park, MD, USA, Rachel Binet, US FDA College Park, MD, USA, Roberto Guzman, US FDA-CFSAN, Bowie, MD, USA, Ai Kataoka, US FDA CFSAN, College Park, MD, USA, Baoguang Li, US FDA, Human Foods Program, Division of Food Safety Genomics, Laurel, MD, USA, Mark Mammel, US FDA, Laurel, MD, USA, Jennifer Miller, US FDA, Human Foods Program, Division of Food and Environmental Safety, College Park, MD, USA

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POSTER SESSIONS

P2-82 Growth of *Cronobacter* in Powdered Infant Formula during Enrichment in Buffered Peptone Water – **Hee Jin Kwon**, FDA, College Park, MD, USA, Shoaib Aziz, ORISE, FDA, College Park, MD, USA, Yi Chen, FDA, College Park, MD, USA, Xiaohong Deng, FDA/Human Food Program, College Park, MD, USA, Jefferny Lin, FDA, College Park, MD, USA, Jianghong Meng, University of Maryland, College Park, MD, USA, Emily Torres, FDA, College Park, MD, USA

P2-83 Comparison of Newly Developed and/or Modified (Pre-)Enrichment Broths for Detection of *Listeria monocytogenes* in Different Matrices – **Jefferny Lin**, FDA, College Park, MD, USA, Hee Jin Kwon, FDA, College Park, MD, USA, Shoaib Aziz, ORISE, FDA, College Park, MD, USA, Yi Chen, FDA, College Park, MD, USA, Xiaohong Deng, FDA/Human Food Program, College Park, MD, USA, Jianghong Meng, University of Maryland, College Park, MD, USA, Emily Torres, FDA, College Park, MD, USA

P2-84 A New Chromogenic Plating Media – R & F® *Bacillus cereus* Group (BCG) Agar Allowed for Improved Isolation and Quantification of Species Belonging to the *B. cereus* Group Including *B. cytotoxicus* – **Luvie Sturghill**, Mérieux NutriSciences, Crete, IL, USA, Catharine Carlin, Merieux NutriSciences, Crete, IL, USA, Paul Nguyen, R & F Products, Carol Stream, IL, USA, Lawrence Restaino, R & F Products, Inc., Downers Grove, IL, USA

P2-85 Investigating Source-Specific Variations in Hyperspectral Signatures of *Salmonella* Infantis – **Gillian Kuehnle**, Michigan State University, East Lansing, MI, USA, MeiLi Papa, Michigan State University, East Lansing, MI, USA, Bosoon Park, USDA, Athens, GA, USA, Jiyoon Yi, Michigan State University, East Lansing, MI, USA

P2-86 Developing a Microscopy-Based Method to Quantify Biofilm Removal – **Madeline Burgess,** Sterilex, Hunt Valley, MD, USA, Kelly Ferguson, Sterilex, Cockeysville, MD, USA, Sara Mindek, Sterilex, Hunt Valley, MD, USA, Bruce Urtz, Sterilex, Cockeysville, MD, USA

P2-87 Verification of the Assurance® GDS for *Salmonella* Tq Kit for Detecting *Salmonella* in Dairy and Chocolate-Based Products from India – **Brenda Kroft**, MilliporeSigma, St. Louis, USA, Andrew Lienau, MilliporeSigma, Bellevue, WA, USA, Ashvinkumar Bhaverkar, Merck, Bangalore, India, John Linneman, MilliporeSigma, Saint Louis, MO, USA, Krishna Veni, Central Quality Lab Karnataka Milk Federation, Bangalore, India

P2-88 Rapid Quantification of *Salmonella* Typhimurium in Ground Chicken Using Immunomagnetic Chemiluminescent Assay – **Sandhya Thapa**, Tennessee State University, Nashville, TN, USA, Fur-Chi Chen, Tennessee State University, Nashville, TN, USA

P2-89 Survival of Seven Species of *Cronobacter* in Powdered Infant Formula: A Study to Determine Inoculation Levels in Method Validation – **Xiaohong Deng**, FDA/Human Food Program, College Park, MD, USA, Shoaib Aziz, ORISE, FDA, College Park, MD, USA, Yi Chen, FDA, College Park, MD, USA, Hee Jin Kwon, FDA, College Park, MD, USA, Jefferny Lin, FDA, College Park, MD, USA, Jianghong Meng, University of Maryland, College Park, MD, USA, Emily Torres, FDA, College Park, MD, USA

P2-90 Matrix Extension Study of FDA Real-Time PCR for Screening *Salmonella* in Foods – **Hua Wang**, FDA, College Park, MD, USA, Rachel Binet, FDA, College Park, MD, USA, Kelly Domesle, FDA Center for Veterinary Medicine, Laurel, MD, USA, Beilei Ge, FDA, Laurel, MD, USA, Anna Maounounen-Laasri, FDA/CFSAN, College Park, MD, USA, Shenia Young, FDA, Laurel, MD, USA

P2-91 A Complementary Approach to Monitor Food Safety, Quality and Remaining Shelf Life of Spinach Juices by Using Chemical and Microbial Fingerprinting – **Maleeka Singh**, University of Guelph, Brampton, ON, Canada, Maria G. Corradini, Department of Food Science, University of Guelph, Guelph, ON, Canada, Lawrence Goodridge, University of Guelph, Guelph, ON, Canada, Xue Jun, Agri-Food and Agriculture Canada (AAFC), Guelph, ON, Canada, Opeyemi U. Lawal, Canadian Research Institute for Food Safety (CRIFS), University of Guelph, Guelph, ON, Canada, Xiaoli Liu, Institute of Agro-Products Processing, Jiangsu Academy of Agricultural Sciences, Nanjing 210014, China, Valeria R. Parreira, Canadian Research Institute for Food Safety (CRIFS), University of Guelph, Guelph, ON, Canada, John Shi, Agri-Food and Agriculture Canada (AAFC), Guelph, ON, Canada

P2-92 Development of a Multiplex Recombinase Polymerase Amplification Coupled with Lateral Flow Dipsticks for the Simultaneous Rapid Detection of *Salmonella* spp., *Salmonella* Typhimurium and *Salmonella* Enteritidis – **Xianming Shi**, Shanghai Jiao Tong University, Shanghai, China, Zeqiang Zhan, Shanghai Jiao Tong University, Shanghai, China, Yan Cui, Shanghai Jiao Tong University, Shanghai, 中国, Shoukui He, Shanghai Jiao Tong University, Shanghai, China

P2-93 Fiber Optics SERS Sensor for Rapid and Multiplex Detection of *Salmonella* in Turkey Rinsate – **Mahmoud Almasri**, University of Missouri-Columbia, MO, USA, Mai Abuhelwa, University of Missouri-Columbia, Columbia, MO, USA, Adheesha Bandara, Food Science Program, University of Missouri-Columbia, MO, 65211, USA, Anna Carlson, Cargill Research & Development, Valley Center, KS, USA, Fnu Chenggeer, University of Missouri-Columbia, Columbia, MO, USA, Ed Kinzel, University of Notre Dame, Indiana, IN, USA, Amit Morey, Auburn University, Auburn, AL, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA

P2-94 A Novel Lamp-Based Quantitative *Salmonella* Assay for Poultry Carcass Rinse – **Lei Zhang**, Neogen Corporation, Lansing, MI, USA, Preetha Biswas, Neogen Corporation, Lansing, MI, USA, Esteban Valverde Bogentes, Neogen, Lansing, MI, USA, Rocio Foncea, Neogen Food Safety, Oakdale, MN, USA, Neil Percy, Neogen, Oakdale, MN, USA, Gabriela Lopez Velasco, Neogen, Oakdale, MN, USA, Jessica Wood, Neogen, Lansing, MI, USA

P2-95 Comparative Evaluation of a Suite of Hlya-Based Loop-Mediated Isothermal Amplification Assays for Detecting *Listeria monocytogenes* – **Madelyn Springer**, Indiana University, Bloomington, IN, USA, Beilei Ge, FDA, Laurel, MD, USA, Yi Chen, FDA, College Park, MD, USA, Kelly Domesle, FDA Center for Veterinary Medicine, Laurel, MD, USA, Hee Jin Kwon, FDA, College Park, MD, USA, Leticia Mallmann, Indiana University, Bloomington, IN, USA, Eduardo Ximenes, Indiana University, Bloomington, IN, USA

P2-96 Comparative Analysis of Inoculation and Recovery Techniques for Better Recovery of *Listeria monocytogenes* from Ready-to-Eat (RTE) Bulk Turkey and Roast Beef – **Nguyen Dang**, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Chelsea Fast, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Bibiana Law, University of Arizona, Tucson, AZ, USA, Sadhana Ravishankar, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Yash Sharma, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Subash Shrestha, Cargill, Wichita, KS, USA

P2-97 Verification of the Assurance® GDS for *Salmonella* Tq Kit for Detecting *Salmonella* in Indian Spices and Spice Mixtures Snacks – **Devi Annamalai**, MilliporeSigma, St. Louis, MO, USA, Harmesh Sahay, Merck Life Sciences, New Delhi, Delhi, India

P2-98 Detection of *Bacillus cereus* Sensu Lato Group from a Broad Range of Foods Using a Novel Dry-Film Indicator Enumeration Method – **Christina Barnes**, Neogen, Oakdale, MN, USA, Justin Bower, Neogen, Oakdale, MN, USA, Sailaja Chandrapati, Neogen (Retired), Oakdale, MN, USA, Annie Simmons, Neogen, Oakdale, MN, USA, Cade Wizceb, Neogen, Oakdale, MN, USA, Alexi Young, Neogen, Oakdale, MN, USA

P2-99 MALDI-TOF and Compactdry™: A Streamlined Approach to Microbial Identification – **Lauren Hamilton**, Hardy Diagnostics, Santa Maria, CA, USA, Belle Quaresma, Hardy Diagnostics, Santa Maria, CA, USA, Andre Hsiung, Hardy Diagnostics, Santa Maria, CA, USA, Anna Klavins, Hardy Diagnostics, Santa Maria, CA, USA, Alani Vasquez, Hardy Diagnostics, Santa Maria, CA, USA

P2-100 Swab Diversity Study – FDA/GenomeTrakr Collaboration to Determine Optimal Isolate Picks for Capturing Strain Diversity – **Tina Pfefer**, FDA/Human Foods Program, College Park, MD, USA, Martine Ferguson, FDA/Human Foods Program, College Park, MD, USA, Jayanthi Gangiredla, FDA, Laurel, MD, USA, Tim Muruvanda, FDA/Human Foods Program, College Park, MD, USA, James Pettengill, FDA, College Park, MD, USA, Ruth Timme, US FDA, Oakland, CA, USA

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P2-101 Rapid Multi-Locus tNGS-Based Genotyping of *Listeria monocytogenes* by the Clear Safety Automated Platform to Identify Outbreak-Relevant Isolates – **Tamara Schomer**, Clear Labs, Inc., San Carlos, CA, USA, Adam Allred, Clear Labs, Inc., San Carlos, CA, USA, Samuel Hoeffel, Clear Labs, Inc., San Carlos, CA, USA, Ramin Khaksar, Clear Labs, Inc., San Carlos, CA, USA, Andrew Lin, Clear Labs, Inc., San Carlos, CA, USA, Justin Ng, Clear Labs, Inc., San Carlos, CA, USA, David Tran, Clear Labs, Inc., San Carlos, CA, USA

P2-102 Kanamycin Induces Phenotype Changes of *Salmonella* on XLD Agar and Inhibit Carbohydrate Fermentation – **Anamaria Gómez**, Universidad Autónoma de Nuevo León, NL, México, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico, Eduardo Franco-Frias, UANL, San Nicolas De Los Garza, Mexico, Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico, Angel Merino, Facultad De Ciencias Biológicas, UANL, San Nicolas De Los Garza, Mexico, Elvia Elizabeth Yanez Obregón, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Yaraymi Ortiz Reyes, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo Leon, México

P2-103 Harmonized Validation Study: Neogen® Petrifilm® *Bacillus cereus* (Bc) Count Plate for Quantitative Determination of the *Bacillus cereus* Group in a Broad Range of Foods and Animal Feed – **Quynh-Nhi Le**, Neogen Corporation, Lansing, MI, USA, Christina Barnes, Neogen, Oakdale, MN, USA, Benjamin Bastin, Q Laboratories, Cincinnati, OH, USA, M. Joseph Benzinger, Q Laboratories, Cincinnati, OH, USA, Erin Crowley, Q Laboratories, Cincinnati, OH, USA, Wesley Thompson, Q Laboratories, Cincinnati, OH, USA

P2-104 ONT Flongle Sequencing for the Rapid Detection of Foodborne Pathogens in Whole Chicken Rinsate in the Presence of Natural Microflora – **Mohamed Fakhr**, The University of Tulsa, Tulsa, OK, USA, Elise Delaporte, The University of Tulsa, Tulsa, OK, USA, Anand Karki, Sam Houston State University, Huntsville, TX, USA

P2-105 Verification Testing of Real-Time PCR Kits with Vegetable and Nut Matrices – **Sophie Pierre**, Bio-Rad, Marnes-la-Coquette, France, Jennifer Pelowitz, Bio-Rad, Hercules, CA, USA, Wendy Lauer, Bio-Rad Laboratories, Hercules, CA, USA, Josh Whitworth, Bio-Rad Laboratories, Hercules, CA, USA

P2-106 A Novel PCR-Nanopore Checkpoint Sequencing Method for *Salmonella* Detection – **Sally Chen**, University of Missouri, Columbia, MO, USA, Li-Qun Gu, University of Missouri, Columbia, MO, USA, Mahmoud Almasri, University of Missouri, Columbia, MO, USA, Adheesha Bandara, Food Science Program, University of Missouri, Columbia, MO, USA, Hsinyeh Hsieh, University of Missouri, Columbia, MO, USA, Chung-Ho Lin, University of Missouri, Columbia, MO, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA

P2-107 Development of Selective Media for the Enumeration of *Chlorella vulgaris* and *Listeria monocytogenes* from Leafy Green Nutrient Solution and Biofilms – **Gloria Rivas**, The Ohio State University, Wooster, OH, USA, Tim S. Frey, The Ohio State University, Wooster, OH, USA, Sanja Ilic, The Ohio State University, Columbus, OH, USA, Melanie L. Ivey, The Ohio State University, Wooster, OH, USA

P2-108 *Flavobacterium covae:* A Fastidious Bacterium – A Literature Review on Growth Media – **Jhennys P. Becerra**, Mississippi State University, Mississippi State, MS, USA, Angelica Abdallah, Mississippi State University, Starkville, MS, USA, Larry A. Hanson, Mississippi State University, Starkville, MS, USA, Juan Silva, Mississippi State University, Mississippi State, MS, USA, Shecoya White, Mississippi State University, Mississippi State, MS, USA

P2-109 Evaluation of a PCR Workflow for Detection of *S. aureus* from RTE Foods – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, Annette Hughes, Thermo Fisher Scientific, Basingstoke, Hampshire, UK, David Crabtree, Thermo Fisher Scientific, Basingstoke, Hampshire, UK

P2-110 Performance of a *Salmonella* PCR Assay According to NPIP – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, Nikki Faulds, Thermo Fisher Scientific, Basingstoke, UK, Katharine Evans, Thermo Fisher Scientific, Basingstoke, UK, Tiina Karla, Thermo Fisher Scientific, Vantaa, Finland, Anna Ovcharenko, Thermo Fisher Scientific, Vantaa, Finland, Heikki Salavirta, Thermo Fisher Scientific, Vantaa, Finland

P2-111 Detection of Contamination Mixture of *Salmonella* and *Cronobacter* from PIF – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, Jacob King, Thermo Fisher Scientific, Lenexa, KS, USA, Katharine Evans, Thermo Fisher Scientific, Basingstoke, UK, Jani Holopainen, Thermo Fisher Scientific, Vantaa, Finland

P2-112 STEC and *Salmonella* Detection in Beef Trim Sampling Cloths Using Real-Time PCR – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, Evangelos Vandoros, Thermo Fisher Scientific, Basingstoke, Hampshire, UK, Erin Crowley, Q Laboratories, Cincinnati, OH, USA, Andrew Deterding, Q Laboratories, Cincinnati, OH, USA, Katharine Evans, Thermo Fisher Scientific, Basingstoke, UK, Kateland Lanzit, Q Laboratories, Cincinnati, OH, USA, Wesley Thompson, Q Laboratories, Cincinnati, OH, USA

P2-113 Testing 125g of Dairy and Multi-Component Foods for *Listeria* Using a Real-Time PCR Based Method – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, Evangelos Vandoros, Thermo Fisher Scientific, Basingstoke, Hampshire, UK, Katharine Evans, Thermo Fisher Scientific, Basingstoke, UK, Francois Le Nestour, MICROSEPT, Le Lion D'Angers, France, Guillaume Mesnard, Laboratoire MICROSEPT, Le Lion D'Angers, France

P2-114 Performance of Thermo Scientific™ Suretect™ PCR Kits for the Detection of Multiple Foodborne Pathogens in a Meat Production Facility – **Salman Zeitouni**, Thermo Fisher Scientific, Dardilly, France, David Crabtree, Thermo Fisher Scientific, Basingstoke, Hampshire, UK, Fernanda Fernandes, Thermo Fisher Scientific, Basingstoke, Hampshire, UK, Bruna Mariana Alves da Silva, JBS, Barra do Bugres, Mato Grosso, Brazil Carlos Tersarotto, JBS, Sao Bernardo Do Campo, Brazil, Rachael Trott, Thermo Fisher Scientific, Basingstoke, Hampshire, UK

P2-115 High-Fat Food *Salmonella* spp. Detection with Lamp – Bioluminescent Assay – **Daiane Martini**, Neogen, Campinas, São Paulo, Brasil, Vanessa Tsuhako, Neogen, Indaiatuba, São Paulo, Brazil, Gabriel Gomes, Brazilian Food Industry, Gaspar, Brasil, Thomaz Marra, Neogen, Neogen/Indaiatuba/SP/Brasil, SP, Brasil, Beatriz Rosa, Neogen, Neogen/Indaiatuba/SP/Brasil, SP, Brasil, Thiago Zarilli, Brazilian Food Industry, Gaspar, Brasil

P2-116 Rapid Detection of *Salmonella* spp. Using the Loop-Mediated Isothermal Amplification (Lamp) Assay – Bioluminescent in Bovine Blood Flour from 3 Regions of Brazil – **Carlos Tersarotto**, JBS, São Bernardo Do Campo, Brazil, Gisele Costa, West-Center Brazilian Meat Industry, Campo Grande/Mato Grosso do Sul, Brasil, Amanda Letícia Boa da Silva, Southeast Brazilian Meat Industry, Andradina, São Paulo, Brasil Juliana Cristina da Silveira Vieira, Southeast Brazilian Meat Industry, São Paulo, São Paulo, Brasil, José Rosa de Melo, North Brazilian Meat Industry, Vilhena, Pará, Brasil, Flávia Karina Paes de Oliveira, JBS Friboi, Andradina, São Paulo, Brazil, Simone dos Santos Morais Rodrigues, West-Center Brazilian Meat Industry, Campo Grande/Mato Grosso do Sul, Brasil, Bianca Victoria Vasques Jimenez, West-Center Brazilian Meat Industry, Campo Grande/Mato Grosso do Sul, Brasil

P2-117 Detection of *Listeria* from 125 G Ham Steaks Using the Hygiena Bax® System Real-Time PCR Assay – **Micah Greenzweig**, Hygiena, Wilmington, DE, USA, Ilir Mandija, Hygiena, Wilmington, DE, USA, Julie Weller, Hygiena, New Castle, DE, USA

P2-118 Rapid Screening of Microorganisms from Chicken Bone Broth, Chicken Stock, and Chicken Broth Using Hygiena's ATP-Based Innovate™ Rapid Microbial Screening System – **Micah Greenzweig**, Hygiena, Wilmington, DE, USA, Julie Weller, Hygiena, New Castle, DE, USA

P2-119 Verification of a Commercial Real-Time PCR *Listeria monocytogenes* and *Listeria* Species Detection Method on Individually Quick-Frozen Vegetable Matrices – **Erica Miller**, Eurofins Microbiology Laboratories, Louisville, KY, USA, Christopher Crowe, Eurofins, Des Moines, IA, USA, David Legan, Eurofins Scientific Inc., Madison, WI, USA

P2-120 Verification of a Commercial Real-Time PCR *Salmonella* Detection Method on Individually Quick-Frozen Vegetable Matrices – **Erica Miller**, Eurofins Microbiology Laboratories, Louisville, KY, USA, Christopher Crowe, Eurofins, Des Moines, IA, USA, David Legan, Eurofins Scientific Inc., Madison, WI, USA

Developing Scientist Competitor Undergraduate Student Competitor

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P2-121 Verification of a Commercial Real-Time PCR Shiga-Toxin Producing *E. coli* (STEC) Detection Method on Individually Quick-Frozen Vegetable Matrices – **Erica Miller**, Eurofins Microbiology Laboratories, Louisville, KY, USA, Christopher Crowe, Eurofins, Des Moines, IA, USA, David Legan, Eurofins Scientific Inc., Madison, WI, USA

P2-122 Application of a High Affinity Photoreactive DNA Binding Dye to Prevent Interference from Death Cell DNA during *Cronobacter* Detection during Molecular Detection – **Gabriela Lopez Velasco**, Neogen, Oakdale, MN, USA, Rocio Foncea, Neogen Food Safety, Oakdale, MN, USA, Neil Percy, Neogen, Oakdale, MN, USA

P2-123 Evaluation of Performance of the Neogen Molecular Detection Assay 2 – *Salmonella* as a Method to Analyze 375 G Test Portions of Egg Products with a Next Day Result Compared to USDA, FSIS Mlg 4.14 – **Gabriela Lopez Velasco**, Neogen, Oakdale, MN, USA, Adam Burthus, Neogen, Oakdale, MN, USA, Eric Chlan, Neogen, Oakdale, MN, USA, Rocio Foncea, Neogen Food Safety, Oakdale, MN, USA, Zachary Schwingel, Neogen, Oakdale, MN, USA

P2-124 Evaluation of Performance of the Neogen Molecular Detection Assay 2 – *Listeria monocytogenes* as an Alternative Method to Analyze Egg Products with a Next Day Result Compared to ISO 11290-1:2017 – **Gabriela Lopez Velasco**, Neogen, Oakdale, MN, USA, Adam Burthus, Neogen, Oakdale, MN, USA, Eric Chlan, Neogen, Oakdale, MN, USA Rocio Foncea, Neogen Food Safety, Oakdale, MN, USA, Zachary Schwingel, Neogen, Oakdale, MN, USA

P2-125 Performance of a Single-Shift *Salmonella* Quantification in Ground Poultry Meat Using Loop-Mediated Isothermal Amplification and Bioluminescence – **Gabriela Lopez Velasco**, Neogen, Oakdale, MN, USA, Estaban Balverde Bogantes, Neogen, Lansing, MI, USA, Toni Bartling, Neogen, Oakdale, MN, USA, Preetha Biswas, Neogen Corporation, Lansing, MI, USA, Tina Caskey, Neogen, Lansing, MI, USA, Rocio Foncea, Neogen Food Safety, Oakdale, MN, USA, Neil Percy, Neogen, Oakdale, MN USA, Micki Rosauer, Neogen, Oakdale, MN, USA

P2-126 Accurate Detection of Foodborne Pathogens: Chromogenic Media Innovation for *Bacillus cereus, Staphylococcus aureus,* and *Clostridium perfringens* – **San-Yi Kim**, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Hojin Choi, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Eun-Ah Jung, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea Hyunsook Kim, Department of Food & Nutrition, College of Human Ecology, Hanyang University, Seoul, South Korea, So-Yeon Kwon, Konkuk University, Seoul, Korea (the Republic of), Soo-Ah Lee, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Kun-Ho Seo, Konkuk University, Gwangjin-gu, Seoul, Korea (the Republic of)

P2-127 Development of Real-Time PCR Assay with Risk Monitoring Capabilities for the Detection of *E. coli* O157:H7 in Beef and Produce – **Rebecca Olsen**, Hygiena, Wappingers Falls, NY, USA, Sapphira Darmawan, Hygiena, New Castle, DE, USA, Patrice Chablain, Hygiena, Camarillo, CA, USA, Cordt Grönewald, Hygiena Diagnostics GmbH, Potsdam, Germany, Stacy Stoltenberg, Hygiena, New Castle, DE, USA

P2-128 Evaluation of Rapid Alternative Method of Commercial Sterility Testing on Long Shelf-Life Foods with Soleris® Method – **Ah Reum Lee**, Atomy Orot, Gonju-si, Korea (the Republic of), Yoo Jung Heo, Neogen Korea, Yongin, Korea (the Republic of), Seong Il Kang, Neogen Korea, Sanghyeon-dong, Yongin-si, Gyeonggi-do, Korea (the Republic of) Byeong Chan Kim, Atomy, Gongju, Korea (the Republic of), Im Joung La, Atomy R&D Center, Gonju, S. Korea, Do Sang Lee, Atomy R&D Center, Gonju, Korea (the Republic of), Ji Hyun Park, Neogen Korea, Yongin, FL, Korea (the Republic of)

P2-129 Comparative Performance of Easy Plate AC-R for Rapid Aerobic Bacteria Count in Multiple Food Types – **Takeo Suzuki**, Kikkoman Corporation, Noda-City, Chiba, Japan, Shunta Isomura, Incorporated Foundation Tokyo Kenbikyo-in, Chuo-ku, Tokyo, Japan, Tetsuya Mori, Incorporated Foundation Tokyo Kenbikyo-in, Chuo-ku, Tokyo, Japan, Natsuki Okochi, Kikkoman Corporation, Noda-City, Chiba, Japan

P2-130 High-Throughput Rapid Isolation of *Salmonella* on an Automated Platform MagiCyte MB – **Paul Liu**, Microsensor Labs, Chicago, IL, USA, Zerikhun Filatov, Microsensor Labs, Chicago, IL, USA, Yang Liu, Microsensor Labs, Chicago, IL, USA, CJ Yu, Microsensor Labs, Chicago, IL, USA

P2-131 High-Throughput Rapid Phenotypic Screening of *Salmonella* – **Paul Liu**, Microsensor Labs, Chicago, IL, USA, Zerikhun Filatov, Microsensor Labs, Chicago, IL, USA, Yang Liu, Microsensor Labs, Chicago, IL, USA, CJ Yu, Microsensor Labs, Chicago, IL, USA

P2-132 Exploring the Potential of Deep Eutectic Solvents in Concentrating Non-Enveloped Virus for Improving Rapid Virus Detection – **Lily Saad**, University of Massachusetts Amherst, Andover, MA, USA, Jared Anderson, Iowa State University, Ames, IA, USA, Byron Brehm-Stecher, Iowa State University, Ames, IA, USA, Maria Dugan, Iowa State University, Ames, IA, USA, Minji Kim, University of Massachusetts, Amherst, MA, USA, Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA, Sloane Stoufer, University of Massachusetts Amherst, Amherst, MA, USA

P2-133 Microbiomes of Lettuce Grown Adjacent to Cafo Reveal Presence of Pen Soil – **Susan Leonard**, U.S. FDA, Laurel, MD, USA, Rebecca Bell, U.S. FDA, College Park, MD, USA, Natalie Brassill, University of Arizona, Maricopa, AZ, USA, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Cassandra Champ, U.S. FDA Laurel, MD, USA, Julie Ann Kase, FDA/HFP, College Park, MD, USA, Ai Kataoka, FDA CFSAN, College Park, MD, USA, David Lacher, U.S. FDA, Laurel, MD, USA

P2-134 Influence of Postbiotic Inclusion on Fecal Shedding of *Salmonella enterica* in Beef-on-Dairy Cross Cattle in a Texas Feedlot Proximal to Harvest – **William Chaney**, Cargill, Inc., Boerne, TX, USA, Craig Belknap, Cargill, Inc., Wayzata, MN, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Tom Edrington, Cargill, Inc., Wayzata, MN, USA, Mariana Fernandez, Texas Tech University School of Veterinary Medicine, Amarillo, TX, USA

P2-135 Biochar Type Affects *E. coli* Removal from Irrigation Water by Sand Filtration – **Joshua Gurtler**, USDA-ARS, Wyndmoor, PA, USA, Christina Garner, USDA-ARS, Wyndmoor, PA, USA, Alan Gutierrez, USDA-ARS, Rockville, MD, USA, Charles Mullen, USDA-ARS, Wyndmoor, PA, USA, Modesto Olanya, USDA-ARS, Wyndmoor, PA, USA, Manan Sharma, USDA/ARS, Beltsville, MD, USA

P2-136 Investigating *Salmonella* Contamination of Romaine Lettuce Production in the Desert Southwest – **Rebecca Bell**, U.S. FDA, College Park, MD, USA, Natalie Brassill, University of Arizona, Maricopa, AZ, USA, Anna Brover, US FDA, College Park, MD, USA, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Christina M. Ferreira, US FDA, College Park, MD, USA, Qing Jin, US FDA, College Park, MD, USA, Julie Ann Kase, FDA/HFP, College Park, MD, USA, Ai Kataoka, FDA CFSAN, College Park, MD, USA

P2-137 Assessment of Flies in Proximity to Livestock and Produce Production Systems in Texas: Investigating Their Role as Sentinels of Antimicrobial Resistance in *Salmonella enterica* – **Eshita Shahanaz**, Texas A&M University, College Station, TX, USA, Giridhar Athrey, Texas A&M University, College Station, TX, USA, Phillip Kaufman, Texas A&M University, College Station, TX, USA, Thomas Taylor, Texas A&M University, College Station, TX, USA

P2-138 Survival Dynamics of Foodborne Pathogens on Microgreens under Different Storage Temperatures – **Shiva Dubey**, University College of Dublin, Dublin, Ireland

P2-139 Effect of Storage Time and Temperature on the Microbial Load in Compost and Compost Teas – **Lois Amponsah**, The University of Georgia, Griffin, GA, USA, Jinru Chen, Department of Food Science and Technology, The University of Georgia, Griffin, GA, USA

P2-140 Efficacy Levels of Ascaroside #18 in Controlling Enterohemorrhagic *E. coli* on Seeds and Sprouts of Various Plants – **Xueyan Hu**, University of Georgia, Griffin, GA, USA, Jinru Chen, Department of Food Science and Technology, The University of Georgia, Griffin, GA, USA, Myungji Kim, University of Georgia, Griffin, GA, USA

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P2-141 Spatial Modeling Approach for Characterizing Water Runoff Pathways to Identify Potential Pathogen Sources and Sampling Locations Associated with Nearby Produce Farms – **Mehran Niazi**, Human Foods Program - FDA, College Park, MD, USA, Kurt Nolte, FDA, Washington, D.C., USA, Jane Van Doren, FDA, College Park, MD, USA

P2-142 Efficacy of Peroxyacetic Acid-Based Sanitizer to Inactivate Tulane Virus Using a Modification of the EPA/FDA Protocol for Reduction of Foodborne Bacteria in Agricultural Water for Pre-Harvest – **Isabel Laubach**, University of California-Davis, Davis, CA, USA, Erin DiCaprio, University of California-Davis, Davis, CA, USA

P2-143 Interactions of Foodborne Human Pathogen (*E. coli* O157:H7) and Pectinolytic Bacteria (*Dickeya fangzhongdai*) on Different Varieties of Onion (*Allium cepa*) – **Shefali Dobhal**, Santosh Bhandari, Department of Plant and Environmental Protection Sciences, Honolulu, HI, USA, Mohammad Arif, University of Hawaii at Manoa, Honolulu, HI, USA, Department of Plant and Environmental Protection Sciences, University of Hawaii at Manoa, Honolulu, HI, USA, Li Ma, Oklahoma State University, Stillwater, OK, USA

P2-144 Integrated Crop-Livestock Grazing Effect on Food Safety of Spinach in Maryland – **Annette Kenney**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Fawzy Hashem, University of Maryland Eastern Shore, Princess Anne, MD, USA, Sejin Cheong, Population Health and Reproduction Pires Lab, Davis, CA, USA, Enrique Escobar, University of Maryland Eastern Shore, Princess Anne, MD, USA, Pat Millner, USDA, Beltsville, MD, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA, Alda Pires, Dept. Population Health & Reproduction, University of California, Davis School of Veterinary Medicine, Davis, CA, USA

P2-145 Survival and Transfer of *E. coli* to Fresh Produce in Organically Managed Soils Amended with Poultry Litter Compost or Heat-Treated Poultry Litter Pellets – **Petrina McKenzie-Reynolds**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Fawzy Hashem, University of Maryland Eastern Shore, Princess Anne, MD, USA, Arthur Allen, University of Maryland Eastern Shore, Princess Anne, MD, USA, Amy Collick, Morehead State University, Morehead, KY, USA, Lurline Marsh, University of Maryland Eastern Shore, Princess Anne, MD, USA, Pat Millner, USDA, Beltsville, MD, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA, Brett Smith, University of Maryland Eastern Shore, Princess Anne, MD, USA

P2-146 Survival Dynamics of *Salmonella* Typhimurium in Hydroponically Grown Basil: A System-Specific Analysis – **Grace Akumu**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Christopher Currey, Iowa State University, Ames, IA, USA, Catherine Simpson, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, USA, Leslie Thompson, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA, Angela Walla, International Center for Food Industry Excellence (ICFIE), Department of Animal and Food Science, Texas Tech University, Lubbock, TX, USA

P2-147 Prevalence of *Listeria monocytogenes* in Native Maine Low-Bush Blueberries – **Yuka Kawata**, University of Maine, Orono, Orono, ME, USA, Fernanda Amaral Della Rosa, University of Maine, Orono, ME, USA, Robson Machado, University of Maine Cooperative Extension, Orono, ME, USA, Jennifer Perry, University of Maine, Orono, ME, USA

P2-148 Longitudinal Study of the Prevalence of Shiga Toxin-Producing *Escherichia coli* and *Salmonella* in Pecan Orchards under Regenerative Agriculture Management – **Roshan Paswan**, Oklahoma State University, Stillwater, OK, USA, Amy Bridges, Noble Research Institute, Ardmore, OK, USA, Nikki D. Charlton, Noble Research Institute, Ardmore, OK, USA, Lauren B. Jones, Noble Research Institute, Ardmore, OK, USA, Li Ma, Oklahoma State University, Stillwater, OK, USA, Sulav Indra Paul, Oklahoma State University, Stillwater, OK, USA

P2-149 Optimizing Treatment Systems for Wastewater Reuse in Hydroponics: A Case Study on Romaine Lettuce Production – **Millicent Tetteh**, Kansas State University-Olathe, Overland Park, KS, USA, Manreet Bhullar, Kansas State University, Olathe, KS, USA, Katelynn Stull, Kansas State University, Olathe, KS, USA, Teng Yang, Kansas State University-Olathe, Lenexa, KS, USA

P2-150 Microbiome Analysis of Manure-Amended Soils and Corresponding Produce from Integrated Crop-Livestock Farms on the Eastern Shore of Maryland – **Brian Goodwyn**, University of Maryland Eastern Shore, Chester, VA, USA, Anuradha Punchihewage Don, University of Maryland Eastern Shore, Princess Anne, MD, USA, Christopher Grim, FDA, College Park, MD, USA, Pat Millner, USDA, Beltsville, MD, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA

P2-151 Comparing Methods and Duration of Air Sampling to Quantify Bacterial Populations in Bioaerosols – **Christina Kessler**, University of Florida, Lake Alfred, FL, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA, Keith Schneider, University of Florida, Gainesville, FL, USA

P2-152 *Salmonella* Isolated from Finishing Beef Steers with and without Liver Abscess: Antibiotic Resistance Profile and Strain Typing – **Carlos Jemio**, Texas Tech University, Amarillo, TX, USA, Rand Broadway, USDA, Lubbock, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Colten Dornbach, Texas Tech University, Lubbock, TX, USA, Kristin Hales, Texas Tech University, Lubbock, TX, USA, Gabriela Mendez Villacorta, Texas Tech University, Amarillo, TX, USA

P2-153 Temporal and Environmental Factors Associated with the Survival of *Escherichia coli* TVS 353, a Surrogate for *Salmonella enterica*, in Manure-Amended Georgia Soils and Its Fate in Bulb Onion – **Harsimran Kaur Kapoor**, University of Georgia, Athens, GA, USA, Patrick Baur, University of Rhode Island, Kingston, RI, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, Abhinav Mishra, University of Georgia, Athens, GA, USA, Aditya Mishra, University of Georgia, Athens, GA, USA, Krishnaprabha Na, University of Georgia, Athens, GA, USA, Amelia Payne, University of Georgia, Athens, GA, USA

P2-154 Impact of VAM-S Bacteriophage Solution on the Environmental Microbiome in Poultry Litter Systems from Commercial Operations – **Irma Janania Gamez**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Edith Chow, SK8 Biotech, Newmarket, ON, Canada, Carlos Martinez, SK8 Biotech, ON, Canada, Kendra Nightingale, Texas Tech University, Lubbock, TX, USA, Tyler Stephens, SK8 Biotechnologies, Inc., La Vernia, TX, USA

P2-155 Survival and Persistence of Acid-Adapted *E. coli* O157:H7 in Raw Manure under Environmental Condition – **Jyoti Aryal**, Kerry, Beloit, WI, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Aakankshya Dhakal, Louisiana State University, Baton Rouge, LA, USA

P2-156 Evaluation of Boiling Water and Steam Treatment for Hydroponic Substrate Decontamination from *Listeria monocytogenes* – **Ivannova Lituma**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA

P2-157 Minimum Inhibitory Concentrations of Commercial Copper Pesticides are Dependent on *Salmonella* Serovar and Preparation Method – **Ellen Gabriel**, Virginia Tech, Blacksburg, VA, USA, Adib Adnan, USA Department of Agriculture, ARS, Beltsville, MD, USA, Cyril Nsom Ayuk Etaka, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Steven Rideout, Virginia Tech, Blacksburg, VA, USA, Manan Sharma, USDA/ARS, Beltsville, MD, USA, Laura Strawn, Virginia Tech, Blacksburg, VA, USA, Daniel Weller, CDC, University of Rochester, and Virginia Tech, Decatur, GA, USA, Zirui Ray Xiong, USDA ASR, Beltsville, MD, USA

P2-158 Characterization of *Salmonella* Newport Over Time and Space in Produce Pre-Harvest Water from the Eastern Shore of Virginia – **Cyril Nsom Ayuk Etaka**, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA, Diego Antonio Fredes Garcia, Universidad Católica De Chile, Santiago, Chile, Laura Strawn, Virginia Tech, Blacksburg, VA, USA, Caroline Yates, Cornell University, Ithaca, NY, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P2-159 Environmental Source of *Salmonella* Serovars Affects Infectivity in HCT-8 Cells – Kaitlin Smith, University of Delaware, Newark, DE, USA, **Kalmia Kniel**, University of Delaware, Newark, DE, USA, Manan Sharma, USDA/ARS, Beltsville, MD, USA, Mathilde Trudel-Ferland, University of Delaware, Newark, DE, USA

P2-160 WITHDRAWN

P2-161 Efficacy of Thermal Treatments in Inactivating *E. coli* and *E. coli* 0157:H7 in Raw Manure – **Aakankshya Dhakal**, Louisiana State University, Baton Rouge, LA, USA, Achyut Adhikari, Louisiana State University AgCenter, Baton Rouge, LA, USA, Jyoti Aryal, Kerry, Beloit, WI, USA, Sheetal Jha, Louisiana State University, Baton Rouge, LA, USA, Ivannova Lituma, Louisiana State University, Baton Rouge, LA, USA, Elisa Guardado Servellon, Louisiana State University, Baton Rouge, LA, USA, Manish Thapaliya, Louisiana State University, Baton Rouge, LA, USA

P2-162 Comparing the Pathogen Reduction Potential of UV Water Treatment with Competition from Beneficial Bacteria – **Markanna Moore**, Kansas State University, Olathe, KS, USA, Manreet Bhullar, Kansas State University, Olathe, KS, USA, Teng Yang, Kansas State University-Olathe, Lenexa, KS, USA

P2-163 Deposition of Shiga-Toxigenic *E. coli* on Romaine Lettuce Plots Near a CAFO – **Julie Ann Kase**, FDA/HFP, College Park, MD, USA, Rebecca Bell, US FDA, College Park, MD, USA, Natalie Brassill, University of Arizona, Maricopa, AZ, USA, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Roberto Guzman, FDA-CFSAN, Bowie, MD, USA, Ai Kataoka, FDA CFSAN, College Park, MD, USA, Susan Leonard, US FDA Laurel, MD, USA, Channah RockChannah Rock, University of Arizona, Maricopa, AZ, USA

P2-164 Control of *Escherichia coli* TVS 353 in Certified Organic Soils Using a Biofumigant Mustard Cover Crop – **Mmaduabuchi Okeh**, University of Georgia, Athens, GA, USA, Billy Mitchell, University of Georgia, Athens, GA, USA, Kate Cassity-Duffey, University of Georgia, Athens, GA, USA, Timothy Coolong, University of Georgia, Athens, GA, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, James Widmer, University of Georgia, Athens, GA, USA

P2-165 Hepatitis A Virus and Feline Calicivirus Persistence in Hydroponic Solution – **Elena Jerkovic**, University of Tennessee, Knoxville, TN, USA, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA, Kellie Walters, University of Tennessee, Knoxville, TN, USA

P2-166 Ultraviolet Light for Hepatitis A and Aichi Virus Inactivation on Surfaces – **Elena Jerkovic**, University of Tennessee, Knoxville, TN, USA, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Brahmaiah Pendyala, Tennessee State University, Nashville, TN, USA

P2-167 Microbiome Analysis of Selected Retail-Derived Products – **Amrit Pal**, University of Georgia, Griffin, GA, USA, Hendrik Bakker, University of Georgia, Griffin, GA, USA, Amy Mann, University of Georgia, Griffin, GA, USA

P2-168 Investigation of the Inactivate Efficiency of Common Foodborne Pathogens in Dark Leafy Green Vegetable Juice (DLGVJS) by Using Pulsed Light System – **Chenxi Guo**, University of California- Davis, Davis, CA, USA, Luxin Wang, University of California-Davis, Davis, CA, USA, Yucen Xie, University of California-Davis, Davis, CA, USA

P2-169 Does Physical Structure Drive Hygiene Behaviours in School Food Handlers? The Broken Window Theory Approach – **Lais Zanin**, University of São Paulo, Ribeirão Preto, Brazil, Diogo da Cunha, State University of Campinas, Limeira, São Paulo, Brazil, Isabela Canuto, Jan Soon-Sinclair, University of Central Lancashire, Preston, UK, Elke Stedefeldt, Federal University of São Paulo, São Paulo, Brazil

P2-170 Avoiding Alarm Fatigue: A Risk-Based Profile for Product Alert Timing – **Jaclyn Merrill**, North Carolina State University, Raleigh, NC, USA, Lisa Shelley, North Carolina State University, Raleigh, NC, USA, Benjamin Chapman, North Carolina State University, Raleigh, NC, USA, Terrence Christgau, Testo Solutions, West Chester, PA, USA, Eric Moore, Testo Solutions USA, Inc., West Chester, PA, USA, Catherine Sanders, North Carolina State University, Raleigh, NC, USA, Donald Schaffner, Rutgers University, New Brunswick, NJ, USA

P2-171 An Assessment of Three Retail Food Safety Training Programs for Food Service Employees in Pennsylvania – **Zahra Gani**, Penn State University, University Park, PA, USA, Catherine Nettles Cutter, Penn State University, University Park, PA, USA, Andy Hirneisen, Penn State Extension, Leesport, PA, USA Nicole McGeehan, Penn State Extension, Stroudsburg, PA, USA, Jennifer Onopa, Penn State Extension, University Park, PA, USA

P2-172 Food Safety Culture Assessment in the Supermarket: Including Different Sectors – **Laís Zanin**, University of São Paulo, Ribeirao Preto, Brazil, Amanda de Souza Silva, University of São Paulo, Ribeirão Preto, SP, Brazil, Diogo da Cunha, State University of Campinas, Limeira, São Paulo, Brazil, Elke Stedefeldt, Federal University of São Paulo, São Paulo, Brazil, Claudia Winter, Franciscan University, Santa Maria, Brazil

P2-173 Evolving Food Safety Culture through Theory of Planned Behavior-Based Interventions: A Case Study in a Brazilian Air Force Food Service – **Carolina Bottini** Prates, Universidade Federal De São Paulo, São Paulo, Brazil, Diogo da Cunha, State University of Campinas, Limeira, São Paulo, Brazil, Elke Stedefeldt, Federal University of São Paulo, São Paulo, Brazil, Lais Zanin, University of São Paulo, Ribeirão Preto, Brazil

P2-174 Evaluating the Effectiveness of Microlearning in Enhancing Food Safety Knowledge and Behavioral Constructs of Food Handlers – **Carolina Bottini Prates**, Universidade Federal De São Paulo, São Paulo, Brazil, Pieternel Luning, Wageningen University & Research, Wageningen, Netherlands, Koen Pots, Wageningen University & Research, Wageningen, Netherlands, Elke Stedefeldt, Federal University of São Paulo, São Paulo, Brazil, Lais Zanin, University of São Paulo, Ribeirão Preto, Brazil

P2-175 Stakeholder Perspectives on Management Responsibility in UK Food-Service: Insights from Environmental Health Officers and Small- and Medium-Sized Establishments (SMEs) – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Omotayo Irawo, Cardiff Metropolitan University, Cardiff, Devon, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK, Arthur Tatham, ZERO2FIVE Food Industry Centre, Cardiff, UK

P2-176 Management Attitudes and Perceptions Related to Common Food Safety Noncompliance: Implications for Food Safety Culture in UK Micro/Small- and Medium-Sized Food Service Establishments – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Omotayo Irawo, Cardiff Metropolitan University, Cardiff, Devon, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK, Arthur Tatham, ZERO2FIVE Food Industry Centre, Cardiff, UK

P2-177 Investigating Hand Hygiene and Cross-Contamination Risks in the Food Service Sector: A Systematic Review and Observational Case Study – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Veronika Bulochova, ZERO2FIVE Food Industry Centre at Cardiff Metropolitan University, Cardiff, UK, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, Claire Haven-Tang, Cardiff Metropolitan University, Cardiff, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK

P2-178 WITHDRAWN

P2-179 UV-C Led Inactivation of Aerosolized Hepatitis A Virus Droplets on Surfaces – **Breanna Polen**, University of Tennessee at Knoxville, Knoxville, TN, USA, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Brahmaiah Pendyala, Tennessee State University, Nashville, TN, USA

P2-180 Inhibition of *P. aeruginosa* Biofilms by Tea Tree Eo in Vapor Phase – **Aldo Esaú** Xoxocotla Sánchez, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico, Raul Avila Sosa, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico, Teresa Soledad Cid-Pérez, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico, Lorena Guadalupe Cardona Fuentes, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico Ricardo Munguía-Pérez, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico

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P2-181 Engineered Intervention to Remove and Sanitize *Salmonella* in Egg Biofilms – **Bryan Berger**, University of Virginia, Department of Chemical Engineering, Charlottesville, VA, USA, Daniela Bermudez-Aguirre, USDA-ARS ERRC, Wyndmoor, PA, USA, Joseph Capobianco, USDA-ARS, Wyndmoor, PA, USA, Joshua Carter, USDA ARS ERRC, Wyndmoor, PA, USA, Kevin Lynn, University of Virginia, Department of Chemical Engineering, Charlottesville, VA, USA, Brendan Niemira, USDA-ARS, Wyndmoor, PA, USA, Joseph Uknalis, USDA ARS ERRC, Wyndmoor, PA, USA

P2-182 Concealed Observations of Sanitation Variability in Food Service Settings – **Christina Allingham**, University of Massachusetts Amherst, Amherst, MA, USA, Amanda Kinchla, University of Massachusetts, Amherst, MA, USA, Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA

P2-183 A Survey on the Cleaning and Sanitization Practices for Blueberry Harvest Containers and Mechanical Harvesters in the USA – **Yaxi Dai**, University of Georgia, Griffin, GA, USA, Jinru Chen, Department of Food Science and Technology, University of Georgia, Griffin, USA, Sarah Doane, Department of Agriculture and North Willamette Research and Extension Center, Oregon State University, Aurora, USA, Renee Holland, Holland Consulting & Research, LLC, Alma, GA, USA, Myungji Kim, University of Georgia, Griffin, GA, USA, Wei-qiang Yang, Department of Agriculture and North Willamette Research and Extension Center, Oregon State University, Aurora, OR, USA

P2-184 Development of Nonpolar Liquid Antimicrobials to Eradicate *Salmonella* spp. and *Cronobacter* spp. Desiccated on a Stainless-Steel Surface – **Shihyu Chuang**, University of Massachusetts Amherst, Amherst, MA, USA, Lynne McLandsborough, University of Massachusetts, Amherst, MA, USA

P2-185 Aerated Nanobubble Water: A Novel Strategy to Enhance Sanitizer Efficacy Against *Listeria monocytogenes* in Dairy Processing Environments – **Veera Venkata Praveen Raja Kosuri**, University of Connecticut, Storrs, CT, USA, Mary Anne Amalaradjou, Department of Animal Science, University of Connecticut, Storrs, CT, USA, Eswari Kanike, University of Connecticut, Storrs, CT, USA

P2-186 Sanitation Strategies for Mitigating *Listeria monocytogenes* on Food Contact Surfaces – **Aytan Pirverdiyeva**, University of Georgia, Athens, GA, USA, Charles Bency Appolon, University of Georgia, Athens, GA, USA, Faith Critzer, University of Georgia, Athens, GA, USA, Blanca Ruiz-Llacsahuanga, University of Georgia, Athens, GA, USA

P2-187 Exploring the Synergistic Efficacy of Lactic Acid or Peracetic Acid, and UV-C in the Inactivation of *Salmonella* on Soiled Food Contact Surface Materials – **Charles Bency Appolon**, University of Georgia, Athens, GA, USA, Manreet Bhullar, Kansas State University, Faith Critzer, University of Georgia, Athens, GA, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, Mmaduabuchi Okeh, University of Georgia, Athens, GA, USA, Aytan Pirverdiyeva, University of Georgia, Athens, GA, USA, Rawane Raad, The University of Georgia, Athens, GA, USA, Blanca Ruiz-Llacsahuanga, University of Georgia, Athens, GA, USA

P2-188 Antimicrobial Nano-Mist Pretreatment for Enhancing Superheated Steam Efficacy in Inactivating *Enterococcus faecium* NRRL B-2354 on Dry Food Processing Surfaces – **VM Balasubramaniam**, The Ohio State University, Columbus, OH, USA, Shruthy Seshadrinathan, The Ohio State University, Columbus, OH, USA, Abigail Snyder, Cornell University, Ithaca, NY, USA

P2-189 Thermal Dispersal during Dry Steam Treatments Influences Microbial Reduction in 'Difficult-to-Clean' Equipment Niches – **Jakob Baker**, Cornell University, Ithaca, NY, USA, VM Balasubramaniam, The Ohio State University, Columbus, OH, USA, Abigail B. Snyder, Cornell University, Ithaca, NY, USA, YiKun Wang, Cornell University, Ithaca, NY, USA

P2-190 Ultraviolet Inactivation (UV-C) of Viral Aerosols in Air and Surfaces – **Nirmal Thirunavookarasu Sankaranarayanan**, Tennessee State University, Nashville, TN, USA, Housyn Mahmoud, Tennessee State University, Nashville, TN, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Brahmaiah Pendyala, Tennessee State University, Nashville, TN, USA, Aakash Sharma, Dairy Farmers, El Dorado Springs, MO, USA

P2-191 Ultraviolet C Inactivation of *Salmonella* Enteritidis in Raw Chicken Juice on Food Contact Surfaces Using the Contamination Sanitization Inspection and Disinfection (Csi-D+) Device – **Ghana Tirpude**, Chapman University, Orange, CA, USA, Grace Cho, Chapman University, Orange, CA, USA, Bradd Haley, USDA-ARS, Beltsville, MD, USA, Rosalee Hellberg, Chapman University, Orange, CA, USA, Moon Kim, USDA, Beltsville, MD, USA, Jianwei Qin, Environmental Microbial and Food Safety Laboratory, USDA-ARS, Beltsville, MD, USA, Stanislav Sokolov, SafetySpect Inc., Grand Forks, ND, USA, Jakeitha SonnierJakeitha Sonnier, Environmental Microbial and Food Safety Laboratory, USDA-ARS, Beltsville, MD, USA

P2-192 Relative Performance of Rapid Hygiene Assays against Allergen-Laden Soils for Cleaning Verification with Dairy Processing Equipment – **Tetiana Kelsey**, University of Wisconsin-Madison, Madison, WI, USA, Scott Rankin, University of Wisconsin-Madison, Madison, WI, USA

P2-193 Nanotextured 316L Stainless Steel Enhances Antifouling and Antibacterial Potentials against *Salmonella* Newport – **Babak Faraji Gougerdchi**, Virginia Tech, Blacksburg, VA, USA, Yifan Cheng, Virginia Tech, Blacksburg, VA, USA

P2-194 Removal and Inactivation of Coronavirus Surrogates on Abiotic Surfaces Using Pre-Saturated Disinfectant Wipes – **Runan Yan**, Clemson University, Clemson, SC, USA, Angela Fraser, Clemson University, Clemson, SC, USA, Xiuping Jiang, Clemson University, Clemson, SC, USA

P2-195 Growth and Survival of *Listeria monocytogenes* on Various Food Contact Surfaces and Impact of Antimicrobial Intervention – **Yureni Carvajal**, Iowa State University, Ames, IA, USA, Daniel Unruh, Iowa State University, Ames, IA, USA

P2-196 Evaluation of Florescent Biomimetic Particles as a Cleaning Verification Tool – **Melissa Isidora Fernandes**, Food Science, Hadley, MA, USA

P2-197 Investigating the Antimicrobial Efficacy of Commercially Available Electrostatic Sprayers on Food Contact Surfaces – **Comfort Kwamikorkor**, Kansas State University, Olathe, Olathe, KS, USA, Manreet Bhullar, Kansas State University, Olathe, KS, USA, Eleni Pliakoni, Kansas State University, Olathe, KS, USA, Cary Rivard, Kansas State University, Olathe, KS, USA, Xuan Xu, Kansas State University, Manhattan, KS, USA

P2-198 Novel Sanitation Technologies for Improved Control of Bacterial Communities in Meat Processing Facilities – **Yatong, Carris Jiang**, University of Alberta, Edmonton, AB, Canada, Michael Gänzle, University of Alberta, Edmonton, AB, Canada

P2-199 Developing a UV-C Disinfection Tunnel to Control *Listeria* in Organic Produce Industry – **Vikas Kumar Galipothu**, Kansas State University, Overland Park, KS, USA, Manreet Bhullar, Kansas State University, Olathe, KS, USA, Majid Jaberi-Douraki, Kanas State University, Overland Park, KS, USA, Londa Nwadike, South Dakota State University, Brookings, SD, USA, Katelynn Stull, Kansas State University, Olathe, KS, USA, Valentina Trinetta, Kansas State University, Manhattan, KS, USA

P2-200 Isolation and Characterization of a Novel Phage Endolysin (LYSLM3) with Broad-Spectrum Antimicrobial Activity – **Chae-Eun Lee**, School of Food Science and Biotechnology, Kyungpook National University, Daegu, Republic of Korea, Jaein Choe, Kyungpook National University, Daegu, Republic of Korea, Su-Hyeon Kim, School of Food Science and Biotechnology, Kyungpook National University, Daegu, Republic of Korea, Mi-Kyung Park, Kyungpook National University, Daegu, Korea (the Republic of), Su-Min Roh, School of Food Science and Biotechnology, Kyungpook National University, Daegu, Republic of Korea

P2-201 Evaluation of the Effectiveness of Commonly Used Sanitation Strategies against Dual-Species Biofilms of *Listeria monocytogenes* and *Pseudomonas fluorescens* in the Food Industry – **Gracie Allison**, Kansas State University, Manhattan, KS, USA, Faith Critzer, University of Georgia, Athens, GA, USA, Aysu Deniz, Kansas State University, Manhattan, KS, USA, Rishi Drolia, ODU, Norfolk, VA, USA, Victoria Felton, Old Dominion University, Norfolk, VA, USA, Randall Phebus, Kansas State University/FSI, Manhattan, KS, USA, Valentina Trinetta, Kansas State University, Manhattan, KS, USA, Umut Yucel, KSU, Manhattan, KS, USA

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POSTER SESSIONS

P2-202 Confirmation of *Staphylococcus aureus* Biofilm Inhibition and Removal Effects by Disinfectants and Cleaning Methods – **Hee-Kyeong Yang**, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ji Yoon Chang, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ik-Jun Choi, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea Hye-jin Kim, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Dong-Gyu Lee, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Jeong-Eun Lee, Institute of Food Analysis Research Center, Korea Food Research Institute, Wanju, Jeollabuk-do, South Korea, Won-Bo Shim, Institute of Agricultural and Life Science, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea, Ho-Jin SongHo-Jin Song, Division of Applied Life Science, Graduate School, Gyeongsang National University, Jinju, Gyeongsangnam-do, South Korea

P2-203 Influence of the Evaluation Method on the Assessment of the Susceptibility of *Listeria monocytogenes* toward Quaternary Ammonium Compounds – **Montserrat Iturriaga**, Universidad Autonoma De Queretaro, Queretaro, Mexico, Juan Ramiro Pacheco Aguilar, Universidad Autónoma de Querétaro, Querétaro, México, Adrián Gómez Baltazar, Universidad Autónoma de Querétaro, Querétaro, México, Yarlenis Coello Delgado, Universidad Autónoma de Queretaro, Queretaro, México, Angélica Godínez Oviedo, Universidad Autónoma de Querétaro, Queretaro, México, Mauricio Redondo Solano, Universidad de Costa Rica, San José, Costa Rica

P2-204 Removal of Clinically Relevant Cow's Milk Allergenic Proteins from Food Grade Stainless Steel Surfaces: Ultra-Microfibre vs. Multi-Purpose Wipes – **Maria Oliver**, InBio, Cardiff, Wales, UK, Rhys Meredith, InBio Ltd., Cardiff, Wales, UK, Deb Smith, Vikan, Darsham, Suffolk, UK, Emily Sturt, InBio Ltd, Cardiff, Wales, UK, Ross Yarham, InBio Ltd., Cardiff, Wales, UK

P2-205 Utilisation of a Novel, Business-Bespoke Observational Approach to Determine Operative Cleaning and Sanitation Behaviors – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Alin Turila, Zero2Five Food Industry Centre, Cardiff Metropolitan University, Cardiff, UK, Ellen Evans, Cardiff Metropolitan University - ZERO2FIVE Food Industry Centre, Cardiff, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK

P2-206 Effectiveness of Dry Sanitation Methods for the Removal of Almond Butter Residue from a Nut Butter Mill and a Stainless-Steel Pipe – **Lauren Jackson**, FDA/IFSH, Summit Argo, IL, USA, Ian Klug, Oak Ridge Institute for Science and Education, Bedford Park, IL, USA, Hilary Green, FDA, Chicago, IL, USA, Jeremiah Kidd, Oak Ridge Institute for Science and Education, Bedford Park, IL, USA

P2-207 Evaluating the Efficacy of Citric Acid to Enhance the Food Safety of Fish Skin Snacks – **Jose Brandao**, Utah State University, Logan, UT, USA, Valeria Rodríguez, Technological University of Panama, Panama, Gerardo González, Technological University of Panama, Panama, Katheryn Parraga-Estrada, Purdue University, Vincennes, IN, USA, Yamileth Pitti, Technological University of Panama, Panama, Evelyn Watts, LSU AgCenter & Louisiana Sea Grant, Baton Rouge, LA, USA

P2-208 The Role of Aquaculture Practices, Physicochemical Parameters, and Weather on Population Dynamics of *Vibrio parahaemolyticus* and *Vibrio vulnificus* in Oysters and Seawater – **Mary Snow**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Esam Almuhaideb, University of Maryland Eastern Shore, Princess Anne, MD, USA, John Bowers, US FDA, College Park, MD, USA, Angelo DePaola Jr., Angelo DePaola Consulting, LLC, Coden, AL, USA, Bernadette Ezeabikwa, University of Maryland Eastern Shore, Princess Anne, MD, USA, Fawzy Hashem, University of Maryland Eastern Shore, Princess Anne, MD, USA, Gulnihal Ozbay, Delaware State University/Department of Agriculture and Natural Resources, Dover, DE, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA

P2-209 A DNA-Metabarcoding Approach for Seafood Authentication and Species Database Construction – **Mengyi Dong**, Duke University, Durham, NC, USA, Lawrence David, Duke University, Durham, NC, USA, Piper Epstein, Duke University, Durham, NC, USA, Martin Smith, Duke University, Durham, NC, USA, Paul Yu, Pennsylvania State University, University Park, PA, USA

P2-210 Short-Term Persistence of *Cyclospora cayetanensis* Oocysts in Arid Soil – **Sonia Almeria**, FDA, Laurel, MD, USA, Joseph Arida, Joint Institute for Food Safety and Applied Nutrition (JIFSAN), University of Maryland, College Park, MD, USA, John Grocholl, FDA, HFP, Laurel, MD, USA, Joyce Njoroge, FDA, Laurel, MD, USA, Ellie L. Rogers, Joint Institute for Food Safety, University of Maryland, College Park, MD, USA

P2-211 Survival of the Norovirus Surrogate MS2 in Leafy Greens during Storage – **Marciane Magnani**, Federal University of Paraíba, João Pessoa, Paraiba, Brazil, Louise Iara Gomes de Oliveira, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Edson Douglas Silva Pontes, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Donald Schaffner, Rutgers University, New Brunswick, NJ, USA

P2-212 First Report of the Gi.5 [P4] Rare Norovirus Recombination Variant in Mexico – **Jose Antonio Cortés Trigueros**, Universidad Autónoma De Nuevo León, Monterrey, Nuevo León, Mexico, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico, Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico Angel Merino, Facultad De Ciencias Biológicas, UANL, San Nicolas De Los Garza, Mexico, Axel Ossio, Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Nuevo León, México, Néstor Casillas Vega, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, México

P2-213 Examining the Survival of Human Influenza Virus H1N1 and Murine Norovirus in Raw-Milk Cheeses – **Neda Nasheri**, Health Canada (HC), Ottawa, ON, Canada, Madeleine Blondin-Brosseau, Health Canada (HC), Ottawa, ON, Canada, Jennifer Harlow, Health Canada (HC), Ottawa, ON, Canada, Sean Li, Health Canada (HC), Ottawa, ON, Canada, Wanyue Zhang, Health Canada (HC), Ottawa, ON, Canada

P2-214 Hybrid Paper/Pdms Microfluidic Device Integrated with RNA Extraction and Recombinase Polymerase Amplification for Detection of Norovirus in Foods – **Yuxiao Lu**, McGill University, Montreal, QC, Canada, Marti Hua, McGill University, Montreal, QC, Canada, Qian Liu, McGill University, Montreal, QC, Canada, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Yuhang Luo, McGill University, Montreal, QC, Canada, Yudong Xing, McGill University, Montreal, QC, Canada

P2-215 Utilization of Engineered Bacteria for the Concentration of Noroviruses Prior to Detection – **Katherine Woo**, University of Massachusetts-Amherst, Amherst, MA, USA, Minji Kim, University of Massachusetts, Amherst, MA, USA, Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA, Anand Soorneedi, University of Massachusetts, Amherst, MA, USA, Sloane Stoufer, University of Massachusetts, Amherst, MA, USA

P2-216 Virucidal Efficacy of a Peracetic Acid-Based Formulation against Tulane Virus, a Human Norovirus Surrogate – **Julia Fukuba**, University of Massachusetts Amherst, Amherst, MA, USA, Christina Allingham, University of Massachusetts Amherst, Amherst, MA, USA, David Buckley, Diversey, Inc., Charlotte, NC, USA, Brittany Gold, University of Massachusetts Amherst, Amherst, MA, USA, Amanda Kinchla, University of Massachusetts, Amherst, MA, USA, Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA, Mark Zurzolo, Enviro Tech Chemical Services, Inc., Modesto, CA, USA

P2-217 Correlation of Viral infectivity of Murine Norovirus (MNV-1) Pre-Exposed at Different Temperatures by TCID50, Rt-QPCR and CRISPR-Cas13a Based-Detection, after RNase Pre-Treatment – **Axel Ossio**, Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Nuevo León, México, Brenda Cerino, Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Nuevo Leon, Mexico, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico, Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico, Juan Leon, Emory University, Atlanta, GA, Angel Merino, Facultad De Ciencias Biológicas, UANL, San Nicolas De Los Garza, Mexico

P2-218 Efficacy of Sanitizers in Preventing Cross-Contamination of Foodborne Viruses in Wash Water – **Brenna DeRocili**, University of Delaware, Middletown, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA, Mathilde Trudel-Ferland, University of Delaware, Newark, DE, USA

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P2-219 Development of a Strategy for Sequence Confirmation of *Cyclospora cayetanensis* in Contaminated Food and Water Samples – **Sachi Irizawa**, University of Maryland - JIFSAN, College Park, MD, USA, Mauricio Durigan, FDA, Laurel, MD, USA, Laura Ewing-Peeples, FDA, Laurel, MD, USA, John Grocholl, FDA, HFP, Laurel, MD, USA, Alyssa Hall, Human Foods Program, Laurel, MD, USA, Susan Leonard, US FDA, Laurel, MD, USA, Mark Mammel, US FDA, Laurel, MD, USA

P2-220 Thermal Inactivation of Norovirus and Distinguishing Residual Infectious Viral Particles Using Tulane Virus as a Surrogate – **Samantha Dicker**, Food Science & Human Nutrition Department, University of Florida, Gainesville, FL, USA, Razieh Sadat Mirmahdi, University of Florida, Gainesville, FL, USA, Naim Montazeri, University of Florida, Gainesville, FL, USA

P2-221 Impact of a Simulated Gastrointestinal Tract on the Persistence of Foodborne Hepatitis Viruses – **Marianne Levasseur**, Laval University, QC, Canada, Valérie Goulet Beaulieu, Laval University, QC, Canada, Julie Jean, Laval University, QC, Canada, Éric Jubinville, Laval University, QC, Canada, Albane Le Couteulx, Laval University, QC, Canada

P2-222 Choosing a Reliable Method to Detect Hepatitis A Virus in Frozen Berries: Comparison between Ultracentrifugation and Precipitation Concentration-Based Detection Methods – **Mathilde Trudel-Ferland**, University of Delaware, Newark, DE, USA, Julie Jean, Laval University, QC, Canada, Éric Jubinville, Laval University, QC, Canada, Kalmia Kniel, University of Delaware, Newark, DE, USA, Alexis Omar, University of Delaware, Newark, DE, USA, Alexandra Simone, Universty of Delaware, Newark, DE, USA

P2-223 Persistence of *Escherichia coli* and *Eimeria tenella*, a *Cyclospora cayetanensis* Surrogate, in Irrigation Distribution Systems – **Mathilde Trudel-Ferland**, University of Delaware, Newark, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA

P2-224 Attachment of Infectious and Heat-Treated HuNoV GI to Porcine Gastric Mucin: Development of an ELISA Attachment Assay – **Mathilde Trudel-Ferland**, University of Delaware, Newark, DE, USA, Kalmia Kniel, University of Delaware, Newark, DE, USA, Juan Leon, Emory University, Atlanta, GA, USA

P2-225 Identification and Quantification of Phenol Compounds as Inhibitors of Foodborne Virus RT-qPCR Detection – **Marie-Ève Collard**, Laval University, QC, Canada, Valérie Goulet Beaulieu, Laval University, QC, Canada, Julie Jean, Laval University, QC, Canada, Éric Jubinville, Laval University, QC, Canada

WEDNESDAY, JULY 30

8:30 a.m. – 3:00 p.m.

P3 **Poster Session 3 – Beverages and Acid/Acidified Foods, Epidemiology, Food Safety Systems, Food Toxicology, General Microbiology, Meat, Poultry and Eggs, Modeling and Risk Assessment, Molecular Analytics, Genomics and Microbiome, Plant-Based Alternative Products**

Exhibit Hall

P3-01 through P3-115 – Authors present 10:00 a.m. – 11:00 a.m. and 12:00 p.m. – 1:00 p.m.

P3-116 through P3-216 – Authors present 11:00 a.m. – 1:00 p.m.

P3-01 Evaluating Lot-to-Lot Variability of Microbial Indicators and *Salmonella* spp. Loads and Prevalence to Determine Microbial Independence of Chicken Part Rinse Samples Using Different Lot Definitions in a Commercial Processing Facility – **Rigo Soler**, Texas Tech University, Lubbock, TX, USA, Sabrina Blandon, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Daniela Chavez, Texas Tech, Lubbock, TX, USA, Isaac Romero, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

P3-02 Microbial Variability of *Salmonella* spp. and Microbial indicator Loads in Poultry Parts Rinse Samples Collected within a Chicken Tender 1,800-Pound Lot in a Commercial Processing Facility – **Rigo Soler**, Texas Tech University, Lubbock, TX, USA, Sabrina Blandon, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Daniela Chavez, Texas Tech, Lubbock, TX, USA, Isaac Romero, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

P3-03 Rapid and Reliable Detection of Guaiacol-Producing *Alicyclobacillus* in Fruit Juices, Fruit Concentrates and Other Beverages by Real-Time PCR – **Patrice Chablain**, Hygiena, Camarillo, CA, USA, Anne Roelfing, Hygiena Diagnostics, Potsdam, Germany, Ivo Meier-Wiedenbach, BIOTECON-Diagnostics GmbH, Potsdam, Germany, Florian Priller, Hygiena-Diagnostics GmbH, Potsdam, Germany, Vanessa Vater, Hygiena-Diagnostics GmbH, Potsdam, Germany, Antonia Zumblick, Hygiena-Diagnostics GmbH, Potsdam, Germany

P3-04 Automated DNA Isolation Combined with Real-Time PCR Enables an Easy-to-Handle Method for the Simultaneous Detection of *Salmonella* and *Cronobacter* on Surfaces – **Patrice Chablain**, Hygiena, Camarillo, CA, USA, Anne Roelfing, Hygiena Diagnostics, Potsdam, Germany, Deutschland, Alexandra Jahn, Hygiena-Diagnostics GmbH, Potsdam, Deutschland, Stefanie Wendrich, Hygiena Diagnostics GmbH, Potsdam, Germany

P3-05 Controlling Yeast and Mold Spoilage in Acidified Syrups Using Natural Flavor – **Jasmine Kataria**, Kerry, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-06 Control of Spoilage in Coffee Syrup Supplemented with Natural Flavors – **Jasmine Kataria**, Kerry, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-07 Inactivation of Thermophilic Sporeformers in Dairy-Based High Protein Beverages – **Harneel Kaur**, Purdue University, West Lafayette, IN, USA, Patnarin Benyathiar, Mahidol University, Kanchanaburi, Thailand, Dharmendra Mishra, Purdue Univesity, West Lafayette, IN, USA, Amandeep Singh, Purdue Univesity, West Lafayette, IN, USA

P3-08 Microbial Inactivation in Cold-Filled Mayonnaise Sauces – **Pratiksha Kotkar**, University of Georgia, Athens, GA, USA, Kaitlyn Casulli, University of Georgia, Athens, GA, USA

P3-09 Clean-Label Food Preservation System as a Replacement for Potassium Sorbate and Edta to Extend the Shelf Life of Ranch Dressing – **Snigdha Guha**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beloit, IL, USA

P3-10 Evaluating the Persistence of *Salmonella* Tennessee and *Lactobacillus* Brevis in Non-Alcoholic Beer under Low Pasteurization – **Maddyson Frierson**, Virginia Tech Food Science and Technology, Blacksburg, VA, USA, Alexis Hamilton, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Ken Hurley, Virginia Tech, Blacksburg, VA, USA, Amanda Stewart, Virginia Tech, Blacksburg, VA, USA, Chrissy Walsky, Virginia Tech, Blacksburg, VA, USA

P3-11 Effect of Fruit Juice Concentrate on Mycelial Growth of *Byssochlamys* Nivea – **Cassandra Suther**, Ocean Spray Cranberries, Lakeville, MA, USA, Christopher McNamara, Ocean Spray Cranberries, Inc., Lakeville-Middleboro, MA, USA

P3-12 WITHDRAWN

P3-13 The Prevalence, Distribution, and Diversity of *Salmonella* Isolated from Pork Slaughtering Processors and Retail Outlets in the Shandong Province of China – **Panagiotis Skandamis**, Agricultural University of Athens, Kallithea, Greece, Haoqi Zhang, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shangdong, China, Yanwei Mao, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shangdong, China, George-John Nychas, Agricultural University of Athens, Athens, Attica, Greece , Caishuai Yang, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China, Yimin Zhang, Laboratory of Beef Processing and Quality Control,

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China, Guanghui Zhou, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China

P3-14 Study on the Transfer of Shiga Toxin-Producing *Escherichia coli* in Beef Cattle Industry Chain and Quantitative Microbiological Risk Assessment – **Panagiotis Skandamis**, Agricultural University of Athens, Kallithea, Greece, Xueqing Jiang, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Tain, Shangdong, China, Pengcheng Dong, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Tai'an, Taian, Shangdong, China, Xin Luo, Lab of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China, George-John Nychas, Agricultural University of Athens, Athens, Attica, Greece, Yimin Zhang, Laboratory of Beef Processing and Quality Control, College of Food Science and Engineering, Shandong Agricultural University, Taian, Shandong, China

P3-15 Evaluating Temporal Changes and Risk Emergence in Non-Typhoidal *Salmonella enterica* Subspecies *enterica* Serovars and Virulence Factor Genes – **Mason Munro-Ehrlich**, EpiX Analytics, Fort Collins, CO, USA, Solenne Costard, EpiX Analytics, Fort Collins, CO, USA, Jane Pouzou, EpiX Analytics, Fort Collins, CO, USA, Dan Taylor, EpiX Analytics, Fort Collins, CO, USA, Francisco Zagmutt, EpiX Analytics, Fort Collins, CO, USA

P3-16 Enhancing Food Security through Tertiary Social Health Insurance Programme – **Mariam Oyeniyi**, Women and Children Global Life Foundation, Lagos, Nigeria

P3-17 Association between Sociodemographic Factors and Acute Gastrointestinal Illness in a Canadian Linked Cohort – **Ian Young**, Toronto Metropolitan University, Toronto, ON, Canada, Anthony Gilding, Toronto Metropolitan University, Toronto, ON, Canada, Lauren Grant, University of Guelph, Guelph, ON, Canada, Anne Harris, Toronto Metropolitan University, Toronto, ON, Canada

P3-18 Food and Water Safety Practices and Preparedness of Ontarians at Home during Power Outages and Other Emergencies – **Ian Young**, Toronto Metropolitan University, Toronto, ON, Canada, Kais Azad, Toronto Metropolitan University, Toronto, ON, Canada, Melanie Firestone, University of Minnesota School of Public Health, Minneapolis, MN, USA

P3-19 Bulk Bin Bother – Multistate Outbreak of *Escherichia coli* O157:H7 Infections Linked to Organic Walnut Consumption – **Brooke Whitney**, US FDA, Fairfax, VA, USA, Peiman Aminabadi, California Department of Food and Agriculture, Sacramento, CA, USA, Angelica L. Barrall, US Centers for Disease Control and Prevention, Atlanta, GA, USA, Alvin Crosby, US FDA, College Park, MD, USA, Tracy Hawkins, US FDA, College Park, MD, USA, Erin Jenkins, US FDA, College Park, MD, USA, Karen Neil, US Centers for Disease Control and Prevention, Atlanta, GA, USA, Laurie Stewart, Washington State Department of Health, Turnwater, WA, USA

P3-20 Microbial Hazard Analysis of Fresh Produce Available at Athens-Clarke County, Georgia-Serving Retailers – **Sitara J. Cullinan**, University of Georgia, Athens, GA, USA, Leonardo M. Bastos, University of Georgia, Athens, GA, USA, Jackson L. Borders, University of Georgia, Athens, GA, USA, Grazieli Maboni, University of Georgia, Athens, GA, USA, Mallika Mahida, University of Georgia, Athens, GA, USA, Dulce M. Minaya, University of Georgia, Athens, GA, USA, Carla Schwan, University of Georgia, Athens, GA, USA

P3-21 Verification of HACCP in Poultry Slaughterhouses in Japan: A Result of Microbiological Survey of Facilities in Japan during 2020-2022 – **Shigenobu Koseki**, Hokkaido University, Sapporo, Japan

P3-22 Climate-Driven Food Safety Challenges: The Impact of Rising Temperatures, FSIS Facility Density, and *Salmonella* Rates in the USA – **Geoffrey Kangogo**, University of Missouri, Columbia, MO, USA, Mahmoud Almasri, University of Missouri, Columbia, MO, USA, Haitao Li, University of Missouri at St. Louis, St. Louis, MO, USA, Amit Morey, Auburn University, Auburn, AL, USA, Kate Trout, University of Missouri-Columbia, Columbia, MO, USA, Thomas Vought, University of Missouri, Columbia, MO, USA

P3-23 Hygiena® Receives AFNOR Certification for Foodproof® *Salmonella* Plus *Cronobacter* Detection Lyokit for Infant Cereals, Infant Formula with or without Probiotics and ingredients, and Production Environmental Samples – **Rebecca Olsen**, Hygiena, Wappingers Falls, NY, USA, Stefanie Wendrich, Hygiena Diagnostics GmbH, Potsdam, Germany, Astrid Cariou, ADRIA, Quimper, France, Lizaig Gouguet, ADRIA Développement, Quimper, France, Cordt Grönewald, Hygiena Diagnostics GmBH, Potsdam, Germany, Hanna Hartensetin, Hygiena Diagnostics GmbH, Potsdam, Germany, Florian Quero, ADRIA Développement, Quimper, France, Daniele Sohier, Hygiena, Lyon, France

P3-24 Development of a Multiplex Real-Time PCR Assay for the Detection of Highly Pathogenic *Salmonella* (HPS) in Poultry, Beef and Pork – **Rebecca Olsen**, Hygiena, Wappingers Falls, NY, USA, Cordt Grönewald, Hygiena Diagnostics GmBH, Potsdam, Germany, Kerry Brader, USDA-ARS-MARC, Clay Center, NE, USA, Patrice Chablain, Hygiena, Camarillo, CA, USA, Monali Gandhi, Hygiena, New Castle, DE, USA, Dayna Harhay, USDA ARS, Clay Center, NE, USA, Stacy Stoltenberg, Hygiena, New Castle, DE, USA, Tommy Wheeler, U.S. Meat Animal Research Center, Clay Center, NE, USA

P3-25 Evaluation of the Antimicrobial Efficacy of Nanobubble Water with Peracetic Acid for Mixed-Species Dynamic Biofilm Control in Ground Beef Processing – **Yara Abi Nakhoul**, Kansas State University, Manhattan, KS, USA, Randall Phebus, Kansas State University/FSI, Manhattan, KS, USA, Valentina Trinetta, K-State, Manhattan, KS, USA, Chris Vahl, Department of Statistics, Statistical Consulting Laboratory, Kansas State University, Manhattan, KS, USA

P3-26 Efficacy of Peracetic Acid Solutions Prepared Using Nanobubble Water for Controlling Statically Generated Mixed-Species Biofilms on Stainless Steel and Rubber – **Yara Abi Nakhoul**, Kansas State University, Manhattan, KS, USA, Randall Phebus, Kansas State University/FSI, Manhattan, KS, USA, Valentina Trinetta, K-State, Manhattan, KS, USA, Chris Vahl, Department of Statistics, Statistical Consulting Laboratory, Kansas State University, Manhattan, KS, USA

P3-27 Antimicrobial Resistance & Virulence Genes of *Enterococcus* from Retail Pork – **Youngmin Park**, Department of Animal Science, University of California-Davis, Davis, CA, USA, Edward Atwill, School of Veterinary Medicine, University of California-Davis, Davis, CA, USA, Megan Gaa, School of Veterinary Medicine, University of California-Davis, Davis, CA, USA, Bihua Huang, School of Veterinary Medicine, University of California-Davis, Davis, CA, USA, Lauren Kovanda, University of California-Davis, Sacramento, CA, USA, Katie Lee, School of Veterinary Medicine, University of California-Davis, Davis, CA, USA, Xunde Li, University of California-Davis, Davis, CA, USA, Yanhong Liu, Department of Animal Science, University of California-Davis, Davis, CA, USA

P3-28 BPW and UHT Enrichment Protocols to Detect *Salmonella* in Chocolate – **Elijah Doherty**, MilliporeSigma, St. Louis, MO, USA, Elodie Abbé, MilliporeSigma, Molsheim, France, Brenda Kroft, MilliporeSigma, St. Louis, MO, USA, Guillaume Mesnard, Laboratoire Microsept, Le Lion D'Angers, France

P3-29 Expanding the Host Range of Bacteriophages for Improved Detection and Control of Foodborne Pathogens – **Ranee Anderson**, Cornell University, Ithaca, NY, USA, Sam Nugen, Cornell University, Ithaca, NY, USA

P3-30 Reduction of *Salmonella* on Thermally Treated Goldenberries – **Sarah Pappas**, Mondelez International, East Hanover, NJ, USA, Ruben Chavez, Mondelez International, East Hanover, NJ, USA, Andrea Maio, Mondelez International, East Hanover, NJ, USA, Aaron Uesugi, Mondelez International, Columbia, MD, USA

P3-31 Implications of Surface Topography, Chemistry, and Microbial Symbiosis on *Listeria monocytogenes* Biofilm on Food Contact Substances – **Tingting Gu**, University of Florida, Gainesville, FL, USA, Boce Zhang, University of Florida, Gainesville, FL, USA

P3-32 Energy Availability Expands Ecological Boundaries of Horizontal Plasmid Transfer – **Ziqi Liu**, Zhejiang University, Hangzhou, Zhejiang, 中国, Tian Ding, Zhejiang University, Hangzhou, China, Jinsong Feng, Zhejiang University, Hangzhou, China, Yiyang Lou, Zhejiang University, Hangzhou, Zhejiang, China

POSTER SESSIONS

P3-33 Automating Sample Preparation and PCR Setup Improves Result Repeatability – **Jani Holopainen**, Thermo Fisher Scientific, Vantaa, Finland, Hanna Lehmusto, Thermo Fisher Scientific, Vantaa, Finland, Feng Huang, Thermo Fisher Scientific, Vantaa, Finland, Mika Silvennoinen, Thermo Fisher Scientific, Vantaa, Finland, Marian Teye, Thermo Fisher Scientific, Vantaa, Finland, Salman Zeitouni, Thermo Fisher Scientific, Dardilly, France

P3-34 Moisture-Activated Oxygen Scavenger Based on Acacia Catechu for Active Food Packaging: A Plant-Based Alternative – **Prachi Jain**, Indian Institute of Technology Roorkee, Uttarakhand, India

P3-35 Estimating the Burden of Foodborne Diseases in Japan Using Medical Fee Receipt Data (2018-2023) – **Ayumi Chiba**, University of Human and Sciences, Hasuda City, Saitama pref., Japan, Yuko Kumagai, Wayo Women's University, Ichikawa-City, Japan

P3-36 Microbiological Examination of Yellow Mealworm (*Tenebrio* Molitor) Larvae under Various Processing and Storage Conditions as Potential for Human Consumption – **Rachel Midkiff**, West Virginia University, Morgantown, WV, USA, Precious Aduloju, West Virginia University, Morgantown, WV, USA, Coe Corey, West Virginia University, Morgantown, WV, USA, Jacek Jaczynski, West Virginia University, Morgantown, WV, USA, Kristen Matak, West Virginia University, Morgantown, WV, USA, Ibukan Ogunade, West Virginia University, Morgantown, WV, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA, Taylor Sidney, West Virginia University, Morgantown, WV, USA

P3-37 Development of HACCP Plan for Molo Milk Cooling Plant – **Emmanuel Ngetich**, Egerton University, Nakuru, Kenya, Philip Kariuki, Egerton University, Nakuru, Kenya, Patrick Muliro, Egerton University, Nakuru, Kenya

P3-38 Inactivation Kinetics of *Escherichia coli* and *Listeria monocytogenes* in Edible Insects – **Precious Aduloju**, West Virginia University, Morgantown, WV, USA, Coe Corey, West Virginia University, Morgantown, WV, USA, Jacek Jaczynski, West Virginia University, Morgantown, WV, USA, Kristen Matak, West Virginia University, Morgantown, WV, USA, Rachel Midkiff, West Virginia University, Morgantown, WV, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA

P3-39 *Salmonella* Biomapping and Quantification of Sow and Boar Lymph Nodes and Tonsils to Assess Risk in Pork Product across the USA – **Reagan Brashears**, Texas Tech University, Lubbock, TX, USA, Hannah Berry, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Monica Morales, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

P3-40 Effectiveness of Divergicin-Producing *Carnobacterium* Divergens M35 in Controlling *Listeria monocytogenes* Using a Liquid Atomization Device – **Alain Thibodeau**, Aliotech by Grizzly, St-Augustin-de-Desmaures, QC, Canada, Ismail Fliss, Laval University, Quebec City, QC, Canada, Laura Boivin, Aliotech by Grizzly, St-Augustin-de-Desmaures, QC, Canada, Juan Pisco, Aliotech by Grizzly, St-Augustin-de-Desmaures, QC, Canada, Michelle Tessier, Aliotech by Grizzly, St-Augustin-de-Desmaures, QC, Canada

P3-41 Development of a Novel Phage Amplification-QPCR Assay for Detection of *E. coli* O157:H7 – **Fnu Chenggeer**, University of Missouri, Columbia, MO, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA

P3-42 Application of an Enhanced Fiber Optics SERS Sensor for Rapid Detection of *Salmonella* Enteritidis in Turkey Rinse – **Adheesha Bandara**, Food Science Program, University of Missouri, Columbia, MO, USA, Mai Abuhelwa, Department of Electrical Engineering and Computer Science, University of Missouri, Columbia, MO, USA, Mahmoud Almasri, University of Missouri, Columbia, MO, USA, Anna Carlson, Cargill Research & Development, Valley Center, KS, USA, Josh Lyles, Division of Biological Sciences, University of Missouri, Columbia, MO, USA, Azlin Mustapha, University of Missouri, Columbia, MO, USA, William Sanders, Cargill, Inc., Wichita, KS, USA

P3-43 Rapid Method Evaluation for RTE and RTC Quick-Frozen Foods in 5-Year Study – **Qingrui Zhu**, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China, Lijie Sun, Sanquan Foods Co., Ltd, Zhengzhou, Henan, China, Yan Huang, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China

P3-44 Culturally Tailored Food Safety Culture Assessment Tool: A Halal-Focused Approach for Malaysia – **Huikey Lee**, Sunway University, Petaling Jaya, Selangor, Malaysia, Lay Ching Chai, Sunway University, Petaling Jaya, Selangor, Malaysia, Mei-Hua Lin, Sunway University, Petaling Jaya, Selangor, Malaysia

P3-45 Providing Technical Assistance to the Food Industry in Low-Income Countries has a Positive Impact on Food Safety Regulation Compliance – **Laura Torres**, Texas Tech University, Amarillo, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Juan Tejeda, Texas Tech University, Lubbock, TX, USA

P3-46 Targeting "Consistency" in a UK-Based Low-Risk Food and Drink Manufacturer to Strengthen Food Safety and Quality Culture – **Helen Taylor**, Cardiff Metropolitan University, Cardiff, Wales, UK, Laura Hewitt, ZERO2FIVE Food Industry Centre, Cardiff, UK, Paul Hewlett, ZERO2FIVE Food Industry Centre, Cardiff, UK, David Lloyd, Cardiff Metropolitan University, Cardiff, South Wales, UK, Elizabeth Redmond, Cardiff Metropolitan University, Cardiff, Wales, UK, Arthur Tatham, ZERO2FIVE Food Industry Centre, Cardiff, UK

P3-47 Comparison of Aerobic Count (Ac) and *Enterobacteriaceae* (Eb) as indicators for Microbial intervention Validations in Beef Trimmings – **Rafael Martinez**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Markus Miller, Texas Tech University, Lubbock, TX, USA, Ariana Roldan, Texas Tech University, Lubbock, TX, USA

P3-48 Nondestructive Foodborne Pathogen Detection Using a Colorimetric Sensor Enabled by Machine Learning and Non-Toxic Dyes – **Emma Holliday**, University of Florida, Gainesville, FL, USA, Boce Zhang, University of Florida, Gainesville, FL, USA

P3-49 Magnetic Cellulose Nanocomposites Coated by Benzalkonium Chloride: Antibacterial Activity against *Listeria monocytogenes* – **Kishore Chand**, University of Dayton, Dayton, OH, USA, Anastasia Cocieru, University of Dayton, Dayton, OH, USA, Sydney Herzog, University of Dayton, Dayton, OH, USA, Mohammad Jahid Hasan, The University of Texas at San Antonio, San Antonio, TX, USA, Erin McNeil, The University of Texas at San Antonio, San Antonio, TX, USA, Yvonne Sun, University of Dayton, Dayton, OH, USA, Esteban Ureña-Benavides, University of Texas San Antonio, San Antonio, TX, USA, Erick S. Vasquez-Guardado, University of Dayton, Dayton, OH, USA

P3-50 Development and Evaluation of an Open-Tunnel 222-nm Far-UVC Light Decontamination System for Food-Contact Surfaces – **Hui Zhang**, University of Illinois Urbana-Champaign, Champaign, IL, USA, Abdullah Ali A Bin Murayshid, University of Illinois Urbana-Champaign, Champaign, IL, USA, Caden J. Eagler, Eden Park Illumination, Champaign, IL, USA, Sei Rim Kim, University of Illinois Urbana-Champaign, Champaign, IL, USA, Zhihu Liang, Eden Park Illumination, Champaign, IL, USA, Jenny Park, University of Illinois Urbana-Champaign, Champaign, IL, USA, Sung-Jin Park, Eden Park Illumination, Champaign, IL, USA, Yi-Cheng Wang, University of Illinois at Urbana-Champaign, Urbana, IL, USA

P3-51 Food Safety Data in Africa: An Overview – **Kwame Antwi**, Wageningen University, Wageningen, Netherlands, Kwabena Bennin, Wageningen University and Research, Wageningen, Netherlands, Yamine Bouzembrak, Wageningen University and Research, Wageningen, Netherlands, Ayalew Kassahun, Wageningen University and Research, Wageningen, Netherlands, Bedir Tekinerdogan, Wageningen University and Research, Wageningen, Netherlands

P3-52 Analysis of the Influence of Soil Moisture on Coliform Counts in Wild Blueberry Farm Soils – **Fernanda Amaral Della Rosa**, University of Maine, Orono, ME, USA, Robson Machado, University of Maine Cooperative Extension, Orono, ME, USA, Jennifer Perry, University of Maine, Orono, ME, USA

P3-53 Thermal Inactivation Kinetics (D- and Z-Values) of *Salmonella* in High Milk Protein Cookies – **Arshdeep Singh**, University of Missouri, Columbia, MO, USA, Lakshmikantha Channaiah, University of Missouri, Columbia, MO, USA, Drushya Ramesh, University of Missouri, Columbia, MO, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P3-54 Utilizing Moderate Electric Field Treatment to Extend the Antimicrobial Spectrum of Lysozyme against Gram Negative Bacteria – **Mohamed Ali**, Ohio State University, Columbus, OH, USA, Huihong Liu, Ohio State University, Columbus, OH, USA, Chaminda Samaranayake, Ohio State University, Columbus, OH, USA, Sudhir Sastry, The Ohio State University, Columbus, OH, USA, Ahmed Yousef, The Ohio State University, Columbus, OH, USA

P3-55 Convergence Science Approach to Solve Complex Food Safety Challenges in the Coming Decades: A *Salmonella*-Poultry Food Safety Project Case Study – **Amit Morey**, Auburn University, Auburn, AL, USA, Mahmoud Almasri, University of Missouri, Columbia, MO, USA, Tatijana Fisher, Lincoln University, Jefferson City, MO, USA, Hoang Hoa, University of Missouri, Columbia, MO, USA, Haitao Li, University of Missouri at St. Louis, St. Louis, MO, USA, Timothy Safranski, University of Missouri, Columbia, MO, USA, Kate Trout, University of Missouri-Columbia, Columbia, MO, USA

P3-56 Microbial Dynamics in Early-Stage Food Waste Composting Support Food Safety – **Qingyue Zeng**, University of Maryland, College Park, MD, USA, Ryan Blaustein, University of Maryland, College Park, MD, USA, Mairui Gao, University of Maryland, College Park, MD, USA, Erin Harrelson, University of Maryland, College Park, MD, USA, James Jeffrey, University of Maryland, College Park, MD, USA, Maya Mulligan, University of Maryland, College Park, MD, USA, Autumn Salcedo, University of Maryland, College Park, MD, USA

P3-57 Validation of Oatmeal Chocolate Chip Granola Bar Manufacturing Process to Control *Salmonella* Contamination – **Drushya Ramesh**, University of Missouri, Columbia, MO, USA, Lakshmikantha Channaiah, University of Missouri, Columbia, MO, USA, Arshdeep Singh, University of Missouri, Columbia, MO, USA

P3-58 Synergistic Inactivation of Bacterial Pathogens Using Food-Grade Phenolic Derivatives with Mild Heat in Wax Coatings on Citrus – **Yoonbin Kim**, University of California-Davis, Davis, CA, USA, Taeyeon Cha, University of California-Davis, Davis, CA, USA, Inyoung Choi, University of California-Davis, Davis, CA, USA, Sojeong Na, University of California-Davis, Davis, CA, USA, Nitin Nitin, Department of Food Science and Technology, University of California-Davis, Davis, CA, USA

P3-59 Tempering of Wheat by Chlorine Dioxide Solutions to Reduce Populations of Pathogenic Bacteria – **Suhan Bheemaiah Balyatanda**, Kansas State University, Manhattan, KS, USA, Subramanyam Bhadriraju, Kansas State University, Manhattan, KS, USA, Kaliramesh Siliveru, Kansas State University, Manhattan, KS, USA

P3-60 Evaluation of Environmental Stresses Contributing to the Survival of *Salmonella infantis* in Processing Environments – **Eniola Betiku**, University of Arkansas, Fayetteville, AR, USA, Tomi Obe, University of Arkansas, Fayetteville, AR, USA, Prantho Malakar Dipta, University of Arkansas, Fayetteville, AR, USA

P3-61 Performance Evaluation of Sponge Stick with Neutralizing Buffer – **Yan Huang**, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China, Qingrui Zhu, Neogen® Biotechnology (Shanghai) Ltd., Shanghai, China

P3-62 Synergistic Effects of Ultrasound, UV, and Chemical Treatments on Foodborne Pathogens and Biofilm Formation in Hydroponic Nutrient Solutions – **Veerachandra Yemmireddy**, University of Texas Rio Grande Valley, McAllen, TX, USA, Sairithin Reddy Kothur Thirupathi, University of Texas at Rio Grande Valley, Edinburg, TX, USA

P3-63 Transforming HACCP through Digitalization: Towards a Consistent, Intuitive and Agile Food Safety Management System – **John Donaghy**, Nestlé SPN., Vevey, Switzerland, Alba Abelaira, Veeva, Pleasanton, CA, USA

P3-64 Probiotics as Biocontrol Tools of Ochratoxin A in Grape Juice – **Marciane Magnani**, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Cristian Ferreira dos Santos, Federal University of Paraíba, João Pessoa, Paraíba, Brasil, Jaqueline Garda-Buffon, Federal University of Rio Grande, Rio Grande do Sul, Brazil

P3-65 Membrane Integrity of *Salmonella enterica* in Stored Thinly Sliced Carrots – **Marciane Magnani**, Federal University of Paraíba, João Pessoa, Paraiba, Brazil, Verônica Alvarenga, Federal University of Minas Gerais, Belo Horizonte, Minas Gerais, Brazil, Maiara da Costa Lima, Federal University of Paraíba, João Pessoa, Paraíba, Brazil Jerffeson de Lima Tavares, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Evandro Leite De souza, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Louise Iara Gomes de Oliveira, Federal University of Paraíba, João Pessoa, Paraíba, Brazil, Donald Schaffner, Rutgers University, New Brunswick, NJ, USA, Geany Targino de Souza Pedrosa, Federal University of Campina Grande, Pombal, Paraíba, Brazil

P3-66 Maize Value Chain and Consumer Exposure to Aflatoxin in Rwanda – **Jean Paul Hategekimana**, University of Rwanda, Musanze, Rwanda, Timothy J. Herrman, Texas A&M University, College Station, TX, USA, Linda Iradukunda, University of Rwanda, Musanze, Northern Province, Rwanda, Anne Muiruri, APTECA, Nairobi, Kenya, Kizito Nishimwe, University of Maine, Orono, ME, USA

P3-67 Growth and Plasmid Stability of GFP-Labeled *Cronobacter sakazakii* Isolates in Nutrient Rich Medium – **Benjamin Blouin**, University of Georgia, Griffin, GA, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA

P3-68 Growth and Plasmid Stability of GFP-Labeled *Salmonella enterica* Serovar Newport Isolates in Nutrient Rich Medium – **Benjamin Blouin**, University of Georgia, Griffin, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA

P3-69 Impact of Fetal Bovine Serum in Media on Thermal Resistance of Pathogens – **Chyer Kim**, Virginia State University, Petersburg, VA, USA, Ramesh Dhakal, Virginia State University, Petersburg, VA, USA, Samantha Michaud, Virginia State University, Petersburg, VA, USA, Eunice Ndegwa, Virginia State University, Petersburg, VA, USA, Allissa Riley, University of Maryland Eastern Shore, Princess Anne, MD, USA, Yixiang Xu, USDA-ARS, Albany, CA, USA

P3-70 Sanitizer Sensitivity and Virulence: Genomic Insights into *Escherichia coli* – **Vinicius Castro**, Federal University of Mato Grosso, Cuiaba, Mt, Brasil, Eduardo Figueiredo, Federal University of Mato Grosso, Cuiaba, Mato Grosso, Brasil, Yuri Porto, Federal University of Mato Grosso Cuiaba, MT, Brasil, Kim Stanford, University of Lethbridge, Lethbridge, AB, Canadá, Xianqin Yang, Agriculture and Agri-Food Canada, Lacombe, AB, Canada

P3-71 Phylogenetic Analysis Supports INVA for *Salmonella* Species Classification – **Diego Fredes-García**, Virginia Tech, Blacksburg, VA, USA, Laura Carroll, Umeå University, Houghton, MI, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA

P3-72 WGS Reveals Dynamic *Campylobacter* Population Structure in Chicken Abattoir – **Yihan He**, McGill University, Montreal, QC, Canada, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Shanwei Tong, The University of British Columbia, Vancouver, Canada, Tian Yang, McGill University, Sainte-Anne-de-Bellevue, QC, Canada

P3-73 Persistence of *Cronobacter sakazakii* and *Salmonella enterica* on Food Contact Surfaces Based on Cell State and Relative Humidity Levels – **Bairu Chen**, IFSH, Summit, IL, USA, Joelle Salazar, FDA, Bedford Park, IL, USA, Jason Wan, Institute for Food Safety and Health, Summit Argo, IL, USA

P3-74 Biofilm Formation of *Cronobacter sakazakii* in the Presence of Powdered Infant Formula on Food Contact Surfaces – **Megan Fay**, FDA, Wheaton, IL, USA, Joelle Salazar, FDA, Bedford Park, IL, USA

P3-75 Inactivation of *Cronobacter sakazakii* in Reconstituted Powdered Infant Formula – **Gurjot Kaur**, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Shibali Alva, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Megan Fay, FDA, Wheaton, IL, USA, Gregory Fleischman, U.S. FDA, Bedford Park, IL, USA, Vraj Kanani, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Robert Newkirk, U.S. Food and Drug Administration, Bedford Park, IL, USA, Bhavya Pendyala, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Raswanth Raju, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA

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P3-76 Selection for Rifampicin Resistance Does Not Alter Stress Response in *Salmonella* and STEC: Implications for Experimental Design – **Yawei Lin**, Michigan State University, East Lansing, MI, USA, Teresa Bergholz, Michigan State University, East Lansing, MI, USA

P3-78 Characterization of the *Salmonella* Surface Proteome Using a Biotinylation-Based Surface Protein Extraction Method: A Proof-of-Concept Study – **Bhaswati Chowdhury**, Virginia Tech, Blacksburg, VA, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA, John J. Maurer, Virginia Tech, Blacksburg, VA, USA

P3-79 Survival of *Listeria monocytogenes* during Seed Germination – **Saritha Basa**, FDA/Human Foods Program/Office of Applied Microbiology and Technology, Laurel, MD, USA, Laurel Burall, U.S. FDA/ Human Foods Program/ Office of Applied Microbiology and Technology, Laurel, MD, USA

P3-80 Evaluation of *Listeria monocytogenes* Soil Survival and Transfer to Romaine Lettuce – **Laurel Burall**, U.S. FDA/ Human Foods Program/Office of Applied Microbiology and Technology, Laurel, MD, USA, Saritha Basa, U.S. Food and Drug Administration/ Human Foods Program/Office of Applied Microbiology and Technology, Laurel, MD, USA

P3-81 Stability Study after X-Ray Irradiation of a Concentrated Half-Fraser Broth for *Listeria* Detection in Food Samples – **Justyce Jedlicka**, MilliporeSigma, St. Louis, MO, USA, Marisa Heili, Merck KGaA, Darmstadt, Germany, Molsheim, France, Markus Prengel, Merck KGaA, Darmstadt, Germany, Darmstadt, Germany

P3-82 Enhancement of *Listeria monocytogenes* Biofilm Formation by High Concentrations of Benzalkonium Chloride – **Sydney Herzog**, University of Dayton, Dayton, OH, USA, Meaghan Evans, University of Dayton, Dayton, OH, USA, Spencer Hawkins, University of Dayton, Dayton, OH, USA, Evelyn Joynt, University of Dayton, Dayton, OH, USA, Kelly McNamara, University of Dayton, Dayton, OH, USA, Yvonne Sun, University of Dayton, Dayton, OH, USA, Esteban Ureña-Benavides, University of Texas San Antonio, San Antonio, TX, USA, Erick S. Vasquez-Guardado, University of Dayton, Dayton, OH, USA

P3-83 Anti-Biofilm Mechanism of *Bacillus amyloliquefaciens* D747 against Foodborne Pathogens – **Yishan Yang**, USDA-ARS, EMFSL, Beltsville, MD, USA, Irene Falcó, USDA-ARS, EMFSL, Beltsville, MD, USA, Ganyu Gu, USDA, Greenbelt, MD, USA, Xiangwu Nou, USDA-ARS, EMFSL, Beltsville, MD, USA

P3-84 Effect of Grain Varieties and Microbial Cultures on Solid-State Fermentation of Grain Sorghum – **Victoria Lopez**, KSU, Manhattan, KS, USA, Fadi Aramouni, USDA-ARS, Manhattan, KS, USA, Valentina Trinetta, K-State, Manhattan, KS, USA, Umut Yucel, KSU, Manhattan, KS, USA

P3-85 Efficacy of Blossom Honeys from Mexico on the Production of Bacterial Biofilms Relevant to the Food Industry – **Belinda Anel Lozano Garcia**, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico, Marcelo Hernández Salazar, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Yaraymi Ortiz Reyes, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo Leon, México

P3-86 ZIF-8 Nanostructure Carrying Antisense Oligonucleotides Targeting RecA mRNA Reduce Virulence Factors on Diarrheagenic *E. coli* – **Mauricio Roberto Moreno Hernández**, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Yaraymi Ortiz Reyes, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo Leon, México, Jorge Castro Garza, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico

P3-87 Presence of INVA Gene and Kanamycin Resistance in *Salmonella* Isolated from Cattle Feces from Central and Northeastern Mexico – **Elvia Elizabeth Yanez Obregón**, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Norma Heredia, Universidad A. De Nuevo Leon, San Nicolas, NL, Mexico, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Jorge Esteban Davila Avina, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo León, México, Santos Garcia, Universidad Autonoma De Nuevo Leon, San Nicolas De Los Garza, NL, Mexico, Yaraymi Ortiz Reyes, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Nuevo Leon, México, Teódulo Quezada, Universidad Autónoma de Aguascalientes, Aguascalientes, Aguascalientes, México

P3-88 Rate of *Clostridium botulinum* Toxin Production in Cold Brew Coffee with Dairy Coffee Creamer – **Travis Morrissey**, US FDA, Bedford Park, IL, USA, Viviana Aguilar, Institute for Food Safety and Health, Bedford Park, IL, USA, Catherine Felice (Rolfe), US FDA, Bedford Park, IL, USA, Guy Skinner, USFDA, Weaverville, NC, USA

P3-89 Phage Biocontrol of *Listeria monocytogenes* on Ready-to-Eat (RTE) Meat Products – **Mary Theresa Callahan**, Intralytix, Inc., Columbia, MD, USA, Samantha MacKenzie, Intralytix, Inc., Columbia, MD, USA, Alexander Sulakvelidze, Intralytix, Inc., Columbia, MD, USA, Amit Vikram, Intralytix Inc, Columbia, MD, USA

P3-90 Growth of *Listeria monocytogenes* in Biofilms with *Pseudomonas* is Dependent on Specific *Pseudomonas* Species – **Samuel Watson**, The Pennsylvania State University, University Park, PA, USA, Jasna Kovac, The Pennsylvania State University, University Park, PA, USA, Mackenna Yount, The Pennsylvania State University, University Park, PA, USA

P3-91 Biocontrol of Shiga-Toxigenic *Escherichia coli* on Raw Slivered Onions Using a Lytic Phage Preparation – **Samantha MacKenzie**, Intralytix, Inc., Columbia, MD, USA, Mary Theresa Callahan, Intralytix, Inc., Columbia, MD, USA, Alexander Sulakvelidze, Intralytix, Inc., Columbia, MD, USA, Amit Vikram, Intralytix Inc, Columbia, MD, USA

P3-92 Exploring the Link between Microbial Contamination, Pathogens, and Consumer Hygiene Practices in Domestic Kitchens – **Cynthia Ximena Raya Spindola**, Universidad Autónoma de Querétaro, Queretaro, México, Karen Daniela Barón Contreras, Universidad Autónoma de Querétaro, Queretaro, México, Santiago García Huerta, Universidad Autónoma de Querétaro, Queretaro, México Angélica Godínez Oviedo, Universidad Autónoma de Querétaro, Queretaro, México, Montserrat Hernández Iturriaga, Universidad Autónoma de Querétaro, Queretaro, México

P3-93 Lethality of *Salmonella* spp. and *Listeria monocytogenes* for Cooking Process Validation of Fresh-Made and Dried Varieties of Pasta – **Andrew Schissel**, Conagra Brands, Omaha, NE, USA, Edwin Chavez-Trejo, Conagra Brands, Omaha, NE, USA, Kelly Dawson, Conagra Brands, Omaha, NE, USA, Rama Rengarajan, Conagra Brands, Omaha, NE, USA, Ben Sidner, Conagra Brands, Omaha, NE, USA, Adam Woodworth, Conagra Brands, Omaha, NE, USA

P3-94 One Health Perspective on *Salmonella* Mbandaka: Unveiling Transmission Dynamics between Equines, Food, and Humans – **Ajran Kabir**, University of Kentucky, Lexington, KY, USA, Yosra Helmy, University of Kentucky, Lexington, KY, USA

P3-95 Interactions between *Listeria monocytogenes* and *Pseudomonas fluorescens* in Dual-Species Biofilms under Simulated Food Processing Conditions – **Aysu Deniz**, Kansas State University, Manhattan, KS, USA, Pierluigi Di Ciccio, University of Turin, Turin, Italy, Giacomo Di Giacinto, University of Turin, Turin, Italy, Felice Panebianco, Department of Veterinary Sciences, University of Turin, Grugliasco (Torino), Italy, Valentina Trinetta, K-State, Manhattan, KS, USA

P3-96 Comparative Analysis of Optical Density and Colony-Forming Units for Bacterial Growth Assessment: A Comprehensive Overview – **Maria Duarte**, Texas Tech University, Amarillo, TX, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Maria Salazar, Texas Tech University, Amarillo, TX, USA, Laura Torres, Texas Tech University, Amarillo, TX, USA

P3-97 Utilizing Pineapple Byproducts as Sustainable Substrates for Probiotic Cultivation and Antimicrobial Production – **Yuhan Huang**, University of Hawaii at Manoa, Honolulu, HI, USA, Yong Li, University of Hawaii at Manoa, Honolulu, HI, USA

Developing Scientist Competitor Undergraduate Student Competitor

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P3-98 Microbial Profiling of Commercially Packed Tortillas – Brenda Kroft, MilliporeSigma, St. Louis, MO, USA, Sam Santiago, Merck KGaA, Darmstadt, Hessen, Germany, Andres Torres, Universidad Autonoma de Queretaro, Queretaro, Mexico

P3-99 Evaluation of Sub-Lethal Injury at Single Cell Versus Population Level in *Listeria monocytogenes* during Post-Package Thermal Treatment of Frankfurters – **Marianna Arvaniti**, Agricultural University of Athens, Athens, Greece, Anastasia Kapetanakou, Hellenic Agricultural Organisation-DIMITRA, Athens, Greece, Maria Kourteli, Agricultural University of Athens, Athens, Greece Panagiotis Skandamis, Agricultural University of Athens, Kallithea, Greece, Eleni Vlachou, Agricultural University of Athens, Athens, Greece

P3-100 Optimal Sporulation of Three *Clostridium perfringens* Strains at Different Incubation Times: 10 and 14 Days for Validation Research – **Hannah Berry**, Texas Tech University - International Center for Food Industry Excellence, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Reagan Brashears, Texas Tech University, Lubbock, TX, USA, Mark Miller, Texas Tech University, Lubbock, TX, USA, Brayan Montoya, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

P3-101 Evaluating the Persister State of *Listeria monocytogenes* in Response to Gentamicin, Benzalkonium Chloride, NaCl Solutions, and Bacteriocin SB83 – **Paula Teixeira**, Universidade Catolica Portuguesa, Porto, Portugal, Gonçalo Almeida, National Institute for Agrarian and Veterinary Research (INIAV, I.P.), Vairão, 4485-655 Vila do Conde, Vila do Conde, Portugal, Mónica Azevedo, Universidade Católica Portuguesa, CBQF – Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Porto, Portugal Rui Magalhães, Universidade Católica Portuguesa, CBQF – Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Porto, Portugal, Mariana Sousa, Universidade Católica Portuguesa, CBQF – Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Porto, Portugal

P3-102 Assessment of Pathogen Burden in Market Ready Lamb, Goat and Pork Produced in Provincially Licensed Facilities in Ontario – **Jordan Kruisselbrink**, University of Guelph, Guelph, ON, Canada, Jeanine Boulter-Bitzer, OMAFA, Guelph, ON, Canada, Shu Chen, University of Guelph, Agriculture & Food Laboratory, Guelph, ON, Canada Susan Lee, University of Guelph, Guelph, ON, Canada, Carlos Leon-Velarde, Agriculture and Food Laboratory (AFL), University of Guelph, Guelph, ON, Canada, Nicola Linton, University of Guelph, Guelph, ON, Canada, Emefa Monu, Ontario Ministry of Agriculture, Food and Rural Affairs, Guelph, ON, Canada, Saleema Saleh-LakhaSaleema Saleh-Lakha, University of Guelph, Guelph, ON, Canada

P3-103 The Role of Environmental Bacteria in Promoting *Listeria monocytogenes* Biofilm Stability on Abiotic Food Surfaces – **Irene Falcó**, USDA-ARS, EMFSL, Beltsville, MD, USA, Ganyu Gu, USDA, Greenbelt, MD, USA, Xiangwu Nou, USDA-ARS, EMFSL, Beltsville, MD, USA, Yishan Yang, USDA-ARS, EMFSL, Beltsville, MD, USA

P3-104 Impact of Environmental Stresses in the Agri-Food System on Antibiotic Tolerance and Survival of *Campylobacter jejuni* – **Pierre-Luc Longchamps**, McGill University, Sainte-Anne-de-Bellevue, Canada, Shenmiao Li, McGill University, Vaudreuil-Dorion, QC, Canada, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada

P3-105 Attachment and Biofilm Formation by Autochthonous Packing Facility Isolates of *L. monocytogenes* and *P. aeruginosa* – **Johana Lilian John Muthiah**, University of Georgia, Griffin, GA, USA, Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA, Abhinav Mishra, University of Georgia, Athens, GA, USA

P3-106 Phenotypic and Genotypic Characterization of Antimicrobial Resistance of *Salmonella* Infections in Cattle – **Nada Abdelkader**, University of Kentucky, Lexington, KY, USA, Ajran Kabir, University of Kentucky, Lexington, KY, USA, Erdal Erol, University of Kentucky, Lexington, KY, USA, Yosra Helmy, University of Kentucky, Lexington, KY, USA

P3-107 High-Throughput Phenotypic Characterization of Microbes with Time-Lapse Imaging – **Paul Liu**, Microsensor Labs, Chicago, IL, USA, Zerikhun Filatov, Microsensor Labs, Chicago, IL, USA, Yang Liu, Microsensor Labs, Chicago, IL, USA, CJ Yu, Microsensor Labs, Chicago, IL, USA

P3-108 Investigating Pathogen Growth in a Bovine Cell Cultured Meat Model – **Connor Horn**, Purdue University, West Lafayette, IN, USA, Haley Oliver, Purdue University, West Lafayette, IN, USA

P3-109 A Comparison of the Microbial Quality of Organic and Conventional Strawberries – **Haalah Shaikh**, University of Arizona, Tucson, AZ, USA, Sadhana Ravishankar, School of Animal & Comparative Biomedical Sciences, University of Arizona, Tucson, AZ, USA, Libin Zhu, University of Arizona, Tucson, AZ, USA

P3-110 Prevalence and Characterization of *Vagococcus lutrae* in Seafood – **Karthik Chaganti**, University of West Alabama, Tuscaloosa, AL, USA, Hung King Tiong, University of West Alabama, Livingston, AL, USA, Zaria Gulley, University of West Alabama, Livingston, AL, USA, Elizabeth Scruggs, University of West Alabama, Livingston, AL, USA

P3-111 Isolation of Bacteriophages from Wastewater against *Listeria monocytogenes* and *Salmonella* and Application on RTE Meat Products – **Caitlyn Quinn**, Oklahoma State University, Stillwater, OK, USA, Peter Muriana, Oklahoma State University, Stillwater, OK, USA, Punya Bule, Oklahoma State University, Stillwater, OK, USA, Divya Jaroni, USDA-REE-ARS, Burlington, VT, USA

P3-112 Assessing *Listeria monocytogenes* Blood-Brain Barrier Crossing and Antibiotic Resistance across Food and Clinical Isolates – **Victoria Felton**, Old Dominion University, Norfolk, VA, USA, Dibyasri Barman, Old Dominion University, Norfolk, VA, USA, Rishi Drolia, ODU, Norfolk, VA, USA, Jakob Eisenbraun, Old Dominion University, Norfolk, VA, USA, Hannah Keating, Eastern Kentucky University, Richmond, KY, USA

P3-113 Impact of Lactic Acid on Planktonic and Sessile Cells of Wild-Type and Rifampicin-Resistant 0157 and Non-0157 Serogroups of Shiga-Toxin Producing *Escherichia coli* on Two Abiotic Surfaces – **Ranju Kafle**, Tennessee State University, Nashville, TN, USA, Aliyar Fouladkhah, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA, Shahid Chowdhury, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA, Niraj Ghimire, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA, Junice Sibley, Public Health Microbiology Laboratory, Tennessee State University, Nashville, TN, USA

P3-114 Antimicrobial Potential of Psychrotrophic Lactic Acid Bacteria Isolated from Kimchi against Foodborne Pathogens – **Seulgi Jeong**, World Institute of Kimchi, Gwangju, Korea (the Republic of), Daun Kim, World Institute of Kimchi, Gwangju, Republic of Korea, Hae Woong Park, World Institute of Kimchi, Gwangju, Republic of Korea

P3-115 Modeling the Inactivation Kinetics of *Listeria monocytogenes* in Model Acidified Solutions Using High-Pressure Processing – **Madhuparna Deb**, The University of Georgia, Athens, GA, USA, Kaitlyn Casulli, University of Georgia, Athens, GA, USA

P3-116 Evaluating the Effectiveness of Commercial Low Sodium Organic Acid Salts for Controlling *Lactobacillus sakei* in Cured and Uncured Turkey Deli Meat – **Jyoti Aryal**, Kerry, Beloit, WI, USA, Renetta Cooper, Kerry, Beloit, WI, Blaine Jenschke, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Paul Ludtke, Kerry, Beloit, WI, USA, Megan McGough, Kerry, Beloit, WI, USA, Kaylee Rumbaugh, Oklahoma State University, Stillwater, OK, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-117 Sodium-Free Alternatives in Fresh Pork Sausage Preservation – **Jyoti Aryal**, Kerry, Beloit, WI, USA, Renetta Cooper, Kerry, Beloit, WI, Blaine Jenschke, Kerry, Beloit, WI, USA Christin Kohloff, Kerry, Beloit, WI, USA, Paul Ludtke, Kerry, Beloit, WI, USA, Megan McGough, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA, Robby Weyker, Kerry, Beloit, WI, USA

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P3-118 Clean-Label Antimicrobials for inhibiting Spoilage Microorganisms Isolated from Fresh Meat System – **Jyoti Aryal**, Kerry, Beloit, WI, USA, Nicolette Hall, Kerry, Beloit, WI, USA, Blaine Jenschke, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-119 Effect of Vinegar and Vinegar-Natural Flavor System on Outgrowth of *Listeria monocytogenes* and *Leuconostoc mesenteroides* in Frankfurters – **Jyoti Aryal**, Kerry, Beloit, WI, USA, Renetta Cooper, Kerry, Beloit, WI, USA, Blaine Jenschke, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Paul Ludtke, Kerry, Beloit, WI, USA, Megan McGough, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA, Robby Weyker, Kerry, Beloit, WI, USA

P3-120 Assessing the Efficacy of Liquid Smoke in Combination with Organic Acid Salts in Inhibiting Lactic Acid Bacteria and *Listeria monocytogenes* Growth in Frankfurters – **Surabhi Wason**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Paul Ludtke, Kerry, Beloit, WI, USA, Kaylee Rumbaugh, Oklahoma State University, Stillwater, OK, USA, Joyjit Saha, Kerry, Beliot, IL, USA, Robby Weyker, Kerry, Beloit, WI, USA

P3-121 Evaluation of Smoke for *Salmonella* Interventions in Fresh Poultry – **Surabhi Wason**, Kerry, Beloit, WI, USA, Sabrina Blandon, Texas Tech University, Lubbock, TX, USA, Christin Kohloff, Kerry Inc., Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-122 Efficacy of Antimicrobial Interventions against *Salmonella* in Fresh Beef – **Surabhi Wason**, Kerry, Beloit, WI, USA, Christin Kohloff, Kerry, Beloit, WI, USA, Saurabh Kumar, Kerry, Beloit, WI, USA, Isaac Romero, Texas Tech University, Lubbock, TX, USA, Joyjit Saha, Kerry, Beliot, IL, USA

P3-123 Spotting Allies and Adversaries: Natural Bacteria Affect Pathogen Survival – **Rong Wang**, U.S. Meat Animal Research Center, ARS, USDA, Clay Center, NE, USA, Joseph Bosilevac, USDA/ARS, Clay Center, NE, USA, Sapna Chitlapilly Dass, Texas A&M, College Station, TX, USA, Vignesh Palanisamy, Texas A&M University, College Station, TX, USA

P3-124 Evaluating Antimicrobial-Resistant Bacteria in Goat, Sheep, and Lamb – **Jovita Haro,** USDA-FSIS, Athens, GA, USA, Catherine Rockwell, USDA Food Safety and Inspection Service, Washington, D.C., USA, Uday Dessai, USDA FSIS, Washington, D.C., USA, Gamola Fortenberry, USDA FSIS, Washington, D.C., USA

P3-125 Consumer Knowledge, Attitudes, and Practices Regarding Meat and Poultry Safety at Farmers' Markets – **Marlain Khouryieh**, Western Kentucky University, Bowling Green, KY, USA, Hanna Khouryieh, Western Kentucky University, Bowling Green, KY, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA, Yifan Zhang, Wayne State University, Detroit, MI, USA

P3-126 Foodborne Campylobacteriosis in New Zealand: A Successful Risk Reduction Story – **Nicola Dermer**, Ministry for Primary Industries, Wellington, New Zealand

P3-127 Comparative Analysis of Traditional *Salmonella* Serotyping and Deep Serotyping for Enhanced Serotype Diversity Detection in Swine Barn Boot Sock Samples – **Weifan Wu**, USDA-ARS, Clay Center, NE, USA, John Schmidt, ARS-USDA, Clay Center, NE, Nikki Shariat, University of Georgia, Athens, GA, USA, Amy Siceloff, University of Georgia, Athens, GA, USA

P3-128 *Salmonella* Limits (Sallimits™) LOD10 for Various Poultry Products Using Hygiena's Real-Time PCR Solutions – **Julie Weller**, Hygiena, New Castle, DE, USA, Savannah Applegate, Hygiena, Camarillo, CA, USA, Erin Dreyling, Hygiena, Warren, NJ, USA, Monali Gandhi, Hygiena, New Castle, DE, USA, Deja Latney, Hygiena/Qualicon, New Castle, DE, USA

P3-129 Thermal Inactivation of *Salmonella* and the Surrogate *Enterococcus faecium* in Reconstructed Ground Chicken Meat Affected by Temperature and Salt Concentrations – **Coe Corey**, West Virginia University, Morgantown, WV, USA, Annette Freshour, West Virginia University, Morgantown, WV, USA, Gary Freshour, West Virginia University, Morgantown, WV, USA, Jacek Jaczynski, West Virginia University, Morgantown, WV, USA, Carly Long, West Virginia University, Morgantown, WV, USA, Kristen Matak, West Virginia University, Morgantown, WV, USA, Md Shafiul Islam Rion, West Virginia University, Morgantown, WV, USA, Cangliang Shen, West Virginia University, Morgantown, WV, USA

P3-130 Efficacy and Decay Kinetics of Peracetic Acid (PAA) as a Disinfectant in Poultry Processing – **Vyshnavi Ciluveru**, Cleveland State University, Cleveland, OH, USA, Chandrasekhar Kothapalli, Cleveland State University, Cleveland, OH, USA, Daniel Munther, Cleveland State University, Cleveland, OH, USA, Shan Ryan, Cleveland State University, Cleveland, OH, USA

P3-131 Transfer of *Salmonella enterica* Adhered on Dish Sponges to Plastic Surfaces during Simulated Dishwashing – **Santiago García Huerta**, Universidad Autónoma de Querétaro, Queretaro, México, Karen Daniela Barón Contreras, Universidad Autónoma de Querétaro, Queretaro, México, Angélica Godínez Oviedo, Universidad Autónoma de Querétaro, Queretaro, México, Montserrat Hernández Iturriaga, Universidad Autónoma de Querétaro, Queretaro, México, Cynthia Ximena Raya Spindola, Universidad Autónoma de Querétaro, Queretaro, México

P3-132 Impact of Starter Cultures on *Listeria monocytogenes* Reduction Dynamics in Salami – **Jun Haeng Nam**, Michigan State University, East Lansing, MI, USA, Jonas Ahonen, Michigan State University, East Lansing, MI, USA, Teresa Bergholz, Michigan State University, East Lansing, MI, USA, Nolan Schinderle, Michigan State University, East Lansing, MI, USA, Thomas Taylor, Texas A&M University, College Station, TX, USA

P3-133 In-Plant Comparison of Inoculation Sites on Beef Carcasses Using Surrogate Strains of Bacteria – **Michael Starnes**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Andres Martinez, Texas Tech University, Lubbock, TX, USA, Rafael Martinez, Texas Tech University, Lubbock, TX, USA, Mark Miller, Texas Tech University, Lubbock, TX, USA, Ariana Roldan, Texas Tech University, Lubbock, TX, USA

P3-134 Antimicrobial Interventions Reduce *Salmonella* Serovar Complexity in Chicken Parts at Processing – **Amber Richards**, University of Georgia, Athens, GA, USA, R. Jeff Buhr, USDA-Agricultural Research Service, U.S. National Poultry Research Center, Poultry Microbiological Safety and Processing Research Unit, Athens, GA, USA, Caitlin Harris, USDA-Agricultural Research Service, U.S. National Poultry Research Center, Poultry Microbiological Safety and Processing Research Unit, Athens, GA, USA, Elizabeth McMillan, USDA-ARS, US National Poultry Research Center, Athens, GA, USA, Nikki Shariat, University of Georgia, Athens, GA, USA

P3-135 Effects of Various Chilling Methods with or without Hot Water Dip against Aerobic, *Escherichia coli*, and Coliform Counts on Broiler Carcasses – **Elen Zhu**, California Polytechnic State University, San Luis Obispo, CA, USA, Siroj Pokharel, California Polytechnic State University, San Luis Obispo, CA, USA, Iksoon Kang, California Polytechnic State University, San Luis Obispo, CA, USA, Jasmine Moallem, California Polytechnic State University, San Luis Obispo, San Luis Obispo, CA, USA

P3-136 Evaluation of Meat/Poultry Surface Temperature Measurement Approaches for Use in Surface Lethality Validation Tools – **Ava Chavez**, Michigan State University, East Lansing, MI, USA, Ian Hildebrandt, Michigan State University, East Lansing, MI, USA, Michael James, Michigan State University, East Lansing, MI, USA, Bradley Marks, Michigan State University, East Lansing, MI, USA

P3-137 Lactic Acid Spraying on Bovine Carcasses Modifies Bacterial Ecological Succession in Vacuum-Packed Sirloin Stored for a Long Shelf Life – **Anderson Sant'Ana**, University of Campinas, Campinas, Brazil, Verônica Alvarenga, Federal University of Minas Gerais, Belo Horizonte, Minas Gerais, Brazil, Naiara Figueiredo, Industry National System, Belo Horizonte, Brazil Elisabeth Neumann, Federal University of Minas Gerais, Belo Horizonte, Brazil, Silvia Pedroso, Industry National System, Belo Horizonte, Brazil, Sávio Sandes, University of Campinas, Campinas, São Paulo, Brazil

P3-138 Reduction of *Salmonella infantis* by Dairy-Originated *Propionibacterium* Freudenreichii and *Salmonella* Typhimurium Vaccine in Market-Age Broiler Chickens – **Dhananjai Muringattu Prabhakaran**, University of Minnesota, Saint Paul, MN, USA, Amritha Ajayan, University of Minnesota, Saint Paul, MN, USA, Peter Bina, University of Minnesota, Saint Paul, MN, USA, Hamza Javaid, University of Minnesota, Saint Paul, MN, USA, Anup Kollanoor Johny, University of Minnesota, Falcon Heights, MN, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P3-139 Capacity, Regulatory Oversight, and Worker Incentives in Slaughter Hygiene: Experimental Evidence from Western Kenya – **Vivian Hoffmann**, International Food Policy Research Institute (IFPRI), Washington, D.C., USA, Kate Ambler, IFPRI, Washington, D.C., USA, Alice Kiarie, ILRI, Nairobi, Kenya, Lilian Otoigo, ILRI, Nairobi, Kenya, Julia Wagner, IFPRI, Washington, D.C, USA

P3-140 Impact of Cold Adaptation on the Growth of *Listeria monocytogenes* in Deli Turkey: A Comparative Study with Non-Cold Adapted Strains – **Tushar Verma**, Corbion, Lenexa, KS, USA, Andrew Dillon, Corbion, Lenexa, KS, USA, Sara LaSuer, Corbion, Lenexa, KS, USA, Garrett McCoy, Corbion, Lenexa, KS, USA, Anh Linh Nguyen, Corbion, Utrecht, Netherlands

P3-141 Ferric Uptake Regulator (Fur) Plays a Significant Role in the Survival of *Salmonella* Typhimurium on Chicken Meat – **Greeshma Bharathan**, Auburn University, Auburn, AL, USA, R. Jeff Buhr, USDA-ARS, U.S. National Poultry Research Center, Poultry Microbiological Safety and Processing Research Unit, Athens, GA, USA, Karoll Chinchilla, Zamorano University, Honduras, USA, Michelle Hayden, Auburn University, Auburn, USA, Aisha Madi, Auburn University, Auburn, AL, USA, Hunter Sheffield, Auburn University Poultry Science Department, Auburn, AL, USA, Shabarinath Srikumar, Auburn University, Auburn, AL, USA

P3-142 Deep Serotyping of Post-Harvest Meat and Poultry Products Reveals Diverse *Salmonella* Serovar Populations – **Amy Siceloff**, University of Georgia, Athens, GA, USA, Kerry Brader, USDA-ARS-MARC, Clay Center, NE, USA, Dayna Harhay, USDA ARS, Clay Center, NE, USA, Nikki Shariat, University of Georgia, Athens, GA, USA

P3-143 Effect of Organic Acid Components on the Inhibition of *Clostridium perfringens* during Extended Cooling of Uncured Meat Products – **Alexander Hart**, Food Research Institute, Madison, WI, USA, Cynthia Austin, UW-Madison Meat and Dairy Science, Madison, WI, USA, Melissa Bohn, Food Research Institute, Madison, WI, USA, Kathleen Glass, University of Wisconsin, Madison, WI, USA, Kristin Schill, Food Research Institute/University of Wisconsin-Madison, Madison, WI, USA, Brandon Wanless, University of Wisconsin-Madison, Madison, WI, USA

P3-144 Validation of Salami Process for Control of *Salmonella* and *E.coli* O157:H7/STEC – **Hayriye Cetin-Karaca**, Smithfield Foods, Cincinnati, OH, USA, Cynthia Austin, UW-Madison Meat and Dairy Science, Madison, WI, USA, Sheldon Hanna, Smithfield Foods, Cincinnati, OH, USA

P3-145 The Impact of FliZ Gene in the Survival of *Salmonella* Typhimurium in Egg Yolk – **Ana Victoria Troncoso Saavedra**, Auburn University, Auburn, AL, USA, Greeshma Bharathan, Auburn University, Auburn, AL, USA, R. Jeff Buhr, USDA-ARS, U.S. National Poultry Research Center, Poultry Microbiological Safety and Processing Research Unit, Athens, GA, USA, Elva Hernandez, Auburn University, Auburn, AL, USA, Shabarinath Srikumar, Auburn University, Auburn, AL, USA

P3-146 In-Water Supplementation of Trans-Cinnamaldehyde Nanoemulsion Reduces *Salmonella* Enteritidis Cecal and Oviduct Colonization and Egg-Borne Transmission in Layer Chickens – **Trushenkumar Shah**, University of Connecticut, Storrs, CT, USA, Jodie Allen, University of Connecticut, Windsor, CT, USA, Balaji Belore, University of Connecticut, Storrs, CT, USA, Ana Leticia De Almeida, University of Connecticut, Storrs, CT, USA, Chetna Shah, University of Connecticut, Storrs, CT, USA, Abhinav Upadhyay, University of Connecticut, Storrs, CT, USA, Indu Upadhyaya, University of Connecticut, Storrs, CT, USA

P3-147 Effect of Using Antimicrobials in Ozonated Water as a Post Chill Dip against *Salmonella* on Chicken Meat – **Shijinaraj Manjankattil**, Auburn University, Auburn, AL, USA, Dianna Bourassa, Auburn University, Auburn, AL, USA, Karla Valeria Casco Gomez, Auburn University, Auburn, AL, USA, Sungeun Cho, Auburn University, Auburn, AL, USA, Fanny Abigail Contreras Zelaya, Auburn University, Auburn, AL, USA, Juan Carlos Figueroa Sorto, Auburn University, Auburn, AL, USA, Michelle Hayden, Auburn University, Auburn, AL, USA, Matthew Hughes, Auburn University, Auburn, AL, USA

P3-148 Development of a Weight-Based Equation to Estimate Surface Area in Chicken Parts to Standardize Pathogen Counts – **Isaac Romero**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA, Rigo Soler, Texas Tech University, Lubbock, TX, USA

P3-149 A Metagenomics Approach to Study the Effect of Temperature Abuse of Raw Poultry Meat during Supply Chain – **Amit Morey**, Auburn University, Auburn, AL, USA, Mahmoud Almasri, University of Missouri, Columbia, MO, USA, Darryll Barkhouse, bioMérieux, Philadelphia, PA, USA, Julien Defferrard, bioMérieux, Inc., Chicago, IL, USA, Heath Lafevers, bioMérieux, St. Louis, MO, USA, Haitao Li, University of Missouri at St. Louis, St. Louis, MO, USA, John Mills, bioMérieux, Inc., Fenton, MO, USA, Timothy Safranski, University of Missouri, Columbia, MO, USA, Kate Trout, University of Missouri-Columbia, Columbia, MO, USA, Vianca Tashiguano, Auburn University, Auburn, AL, USA

P3-150 Advanced Oxidation Processes Effectively Attenuate *Salmonella* and *Campylobacter* in Simulated Wastewater – **Tomi Obe**, University of Arkansas, Fayetteville, AR, USA, Seth Adesope, University of Arkansas, Fayetteville, AR, USA, Sai Aneesh Reddy Cheruvu, University of Arkansas, Fayetteville, AR, USA, Nikolay Barashkov, Micro-Tracers, Inc., San Francisco, CA, USA, Eniola Betiku, University of Arkansas, Fayetteville, AR, USA, Mark Carlson, Micro-Tracers, Inc., San Francisco, CA, USA, Casey Owens, University or Arkansas, Fayetteville, AR, USA

P3-151 Fluorescence Imaging and Machine Learning for the Detection of Residual Fecal Contamination on Washed Shell Eggs – **Micah T. Black**, Auburn University, Auburn, AL, USA, Insuck Baek, USDA-ARS, Beltsville, MD, USA, Diane Chan, USDA-ARS, Beltsville, MD, USA, Kevin Chao, USDA-ARS, Beltsville, MD, USA, Laura Garner, Auburn University, Auburn, AL, USA, Moon Kim, USDA, Beltsville, MD, USA, Nicholas Mackinnon, SafetySpect, Inc., Sherman Oaks, CA, USA, Amit Morey, Auburn University, Auburn, AL, USA

P3-152 Multidrug-Resistant *Salmonella* Infantis: Genomic Evidence from Retail Chicken Meat – **Maria Jose Navarrete**, Universidad Catolica de Chile, Santiago, Chile, Constanza Díaz, Universidad Andres Bello, Santiago, Chile, Josefina Miranda, Universidad Mayor, Santiago, Chile Andrea Moreno Switt, Catholic University of Chile, Santiago, Chile, Paula Reinoso, Pontificia Universidad Católica de Chile, Santiago, Chile, Daniel Tichy, Universidad Andres Bello, Santiago, Chile

P3-153 Outgrowth of *Clostridium perfringens* during the Thermal Stabilization of Cooked, Uncured Meat Sausages Formulated with Nitrite Removers – **Priya Biswas**, University of Nebraska-Lincoln, Lincoln, NE, USA, Byron Chaves, University of Nebraska-Lincoln, Lincoln, NE, USA, Mohan Li, University of Nebraska-Lincoln, Lincoln, NE, USA

P3-154 Investigating the Antimicrobial Properties of *Cyanobacteria*-Derived Organic Acids against Common Foodborne Pathogens – **Mohana Krishnan Neelakrishnan**, Tennessee State University, Nashville, TN, USA, Ankit Patras, Tennessee State University, Nashville, TN, USA, Brahmaiah Pendyala, Tennessee State University, Nashville, TN, USA

P3-155 *Salmonella* Prevalence in Two Types of Lymph Nodes Collected from Market Hogs Harvested at Commercial Processing Facilities in the U.S. – **Ariana Roldan**, Texas Tech University, Lubbock, TX, USA, Alejandra Abrego, University of Wisconsin-Madison, Madison, WI, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Reagan Brashears, Texas Tech University, Lubbock, TX, USA, Sara Gragg, University of Wisconsin-Madison, Madison, WI, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA, John Schmidt, ARS-USDA, Clay Center, NE, USA

P3-156 Emerging Trends in AI and Food Safety Research: A Content Analysis – **Maryam Oluwafunmilayo Ajasa**, Iowa State University, Ames, IA, USA, Susan Arendt, Iowa State University, Ames, IA, USA

P3-157 One-Step Kinetic Analysis of *Bacillus cereus* Growth in Rice with Chicken – **Vijay Juneja**, USDA-ARS-ERRC, Wyndmoor, PA, USA, Daniela Bermudez-Aguirre, USDA ARS ERRC, Wyndmoor, PA, USA, Lihan Huang, USDA ARS, Wyndmoor, PA, USA, Marangeli Osoria, USDA-ARS, Wyndmoor, PA, USA, Samet Ozturk, USDA, Wyndmoor, PA, USA

P3-158 Evaluating Selected Predictive Model for Validating Bacterial Growth Curve in Broth Culture at Various Levels of Antimicrobial Environment – **Purvi Chatterjee**, WTI, Inc., Jefferson, GA, USA, Jaya Sundaram, WTI Inc., Jefferson, GA, USA, Jasdeep Saini, WTI Inc., Jefferson, GA, USA

POSTER SESSIONS

P3-159 Machine Learning to Predict Host Specificity and Geographic Origin of *Salmonella* Kentucky – **Bradd Haley**, USDA-ARS, Beltsville, MD, USA, Lauren McAllister, USDA, ARS, Beltsville, MD, USA, Jo Ann Van Kessel, USDA-ARS, Beltsville, MD, USA

P3-160 Risk Assessment Predicts Finished Product Standards Most Specifically Targeting Products with Highest Level of Serotypes of Public Health Concern Most Efficiently Reduce Public Health Risk from *Salmonella* in Comminuted Turkey – **Yiyi Li**, Department of Food Science and Human Nutrition at University of Illinois, Urbana-Champaign, Urbana, IL, USA, Cecil Barnett-Neefs, Department of Food Science and Human Nutrition, University of Illinois Urbana-Champaign, Urbana, IL, USA, Matthew Stasiewicz, University of Illinois, Urbana, IL, USA

P3-161 Using a Fresh Produce Supply Chain Risk Model to Assess the Impact of Deviations from Standard Food Safety Protocols – **YeonJin Jung**, Cornell University, Ithaca, NY, USA, Cecil Barnett-Neefs, Department of Food Science and Human Nutrition, University of Illinois Urbana-Champaign, Urbana, IL, USA, Gabriella Pinto, University of Illinois Urbana-Champaign, Urbana, IL, USA, Matthew Stasiewicz, University of Illinois, Urbana, IL, USA, Martin Wiedmann, Cornell University, Ithaca, NY, USA

P3-162 Characterization of Dietary Exposures to Elements in Milk from Cows Fed a Seaweed Diet – **Neva Jacobs**, Stantec, Washington, D.C., USA, Andre Brito, University of New Hampshire, Durham, NH, USA, Kenneth Feder, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA, Brent Kim, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA, Keeve Nachman, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA, Tracy Punshon, Dartmouth College, Hanover, NH, USA

P3-163 Incorrectly Assuming a *Salmonella* Serotype is Low-Virulence Could Meaningfully Lower the Public Health Benefit of Proposed Finished Product Standards for *Salmonella* in Chicken Parts – **Cecil Barnett-Neefs**, Department of Food Science and Human Nutrition, University of Illinois Urbana-Champaign, Urbana, IL, USA, Yiyi Li, Department of Food Science and Human Nutrition at University of Illinois, Urbana-Champaign, Urbana, IL, USA, Matthew Stasiewicz, University of Illinois, Urbana, IL, USA

P3-164 Development of a Semi-Quantitative Risk Model to Reduce Food Safety Barriers in Compost Application for Organic Leafy Greens Production – **Maria Luisa Klobongona**, University of California Davis, Davis, CA, USA, Patrick Baur, University of Rhode Island, Kingston, RI, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA, José Pablo Gómez-Vázquez, Center for Animal Disease Modelling and Surveillance (CADMS), Dept. of Medicine and Epidemiology, School of Veterinary Medicine, University of California-Davis, Davis, CA, USA, Beatriz Martinez-Lopez, University of California-Davis, Davis, CA, USA, Abhinav Mishra, University of Georgia, Athens, GA, USA, Kefang Nie, University of California-Davis, Davis, CA, USA, Ana R. S. Oliveira, University of California-Davis, Davis, CA, USA

P3-165 Modeling the Effect of Pre-Inoculation Temperature History on Lag Phase Duration of Different Strains of *Listeria monocytogenes* – **Harsimran Kaur Kapoor**, University of Georgia, Athens, GA, USA, Govindaraj Dev Kumar, University of Georgia, Center for Food Safety, Griffin, GA, USA, Binita Goshali, University of Georgia, Athens, GA, USA, Abhinav Mishra, University of Georgia, Athens, GA, USA, Subash Shrestha, Cargill, Wichita, KS, USA

P3-166 Impact of Adaptive Multipaddock (AMP) Grazing over Time on Pecan Orchards Soil Microbiomes Using Amplicon Sequencing and Shotgun Metagenomics – **Sulav Indra Paul**, Oklahoma State University, Stillwater, OK, USA, Li Ma, Oklahoma State University, Stillwater, OK, USA, Roshan Paswan, Oklahoma State University, Stillwater, OK, USA, Guodong Zhang, FDA, College Park, MD, USA

P3-167 Dynamic Changes in Antibiotic Resistomes of Pecan Orchard Soil under Adaptive Multipaddock (AMP) Grazing Management – **Sulav Indra Paul**, Oklahoma State University, Stillwater, OK, USA, Li Ma, Oklahoma State University, Stillwater, OK, USA Roshan Paswan, Oklahoma State University, Stillwater, OK, USA, Guodong Zhang, FDA, College Park, MD, USA

P3-168 Rapid Serotyping of *Salmonella* Using Oxford Nanopore Technology: A Cost-Effective Approach for Public Health Surveillance – **Ellie Meeks**, CFSAN FDA, College Park, MD, USA, Narjol Gonzalez-Escalona, FDA/CFSAN/ORS/DMMB, College Park, MD, USA, Maria Hoffmann, US FDA, Washington, D.C., USA Kathryn Judy, US FDA, College Park, MD, USA

P3-169 A Shotgun Metagenomic Approach to Evaluate the Impact of Scavenging Materials on the Microbiome in Three Different Aquaponic Systems – **Anuradha Punchihewage Don**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Hossain Azam, University of the District of Columbia, Washington D.C., USA, Nur Hasan, EzBiome Inc., Gaithersburg, MD, USA, Jose-Luis Izursa, University of Maryland, College Park, MD, USA, Jason Lee, University of the District of Columbia, Washington, D.C., USA, Pat Millner, USDA, Beltsville, MD, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA

P3-170 Comparative Microbiome Analysis of Soil-Based and Soilless Agriculture Systems Using Shotgun Sequencing for Enhanced Food Safety and Sustainability – **Anuradha Punchihewage Don**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Christopher Grim, FDA, College Park, MD, USA, Nur Hasan, EzBiome Inc., Gaithersburg, MD, USA, Fawzy Hashem, University of Maryland Eastern Shore, Princess Anne, MD, USA, Pat Millner, USDA, Beltsville, MD, USA, Salina Parveen, University of Maryland Eastern Shore, Princess Anne, MD, USA

P3-171 Evaluation of Sequencing Depth Requirements for Accurate Taxonomic Assignment by Long Read Sequencing – **Cameron Parsons**, Mérieux NutriSciences, Chicago, IL, USA, Angela Nguyen, Mérieux NutriSciences, Chicago, IL, USA, Claire Penrose, Mérieux NutriSciences, Crete, IL, USA, Sarita Raengpradub, Mérieux NutriSciences, Pleasanton, CA, USA

P3-172 Comparative Analysis of Sequencing and Bioinformatic Approaches for Shotgun Metagenomics of Food-Associated Samples – **Cameron Parsons**, Mérieux NutriSciences, Chicago, IL, USA, Angela Nguyen, Mérieux NutriSciences, Chicago, IL, USA, Claire Penrose, Mérieux NutriSciences, Crete, IL, USA, Sarita Raengpradub, Mérieux NutriSciences, Pleasanton, CA, USA

P3-173 Developing and Implementing FSIS-Specific *Campylobacter* Allele Codes – **Mary Katherine Crews**, USDA - FSIS, Athens, GA, USA, Jovita Haro, USDA-FSIS, Athens, GA, USA, Mustafa Simmons, USDA-FSIS, Washington, D.C., USA, Glenn Tillman, USDA-FSIS, Athens, GA, USA, Jamie Wasilenko, USDA-FSIS, Athens, GA, USA

P3-174 Plasmids and Phages: Links in the 2024 Cucumber *Salmonella* Outbreak – **Seth Commichaux**, FDA, Laurel, MD, USA, Cong Li, FDA, Laurel, MD, USA, Yan Luo, FDA, College Park, MD, USA

P3-175 Genomic Evidence for Adaptive Evolution of *Salmonella* Typhimurium – **Leela Ohri**, Department of Biochemistry, Virginia Tech, Blacksburg, VA, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA, Sandeep Chinnareddy, Department of Computer Science, Virginia Tech, Blacksburg, VA, USA, Ying-Xian Goh, Virginia Tech, Blacksburg, VA, USA, Song Li, School of Plant and Environmental Sciences, Virginia Tech, Blacksburg, VA, USA, Jingqiu Liao, Virginia Tech, Blacksburg, VA, USA, Hailong Zhang, Department of Business Information Technology, Virginia Tech, Blacksburg, VA, USA

P3-176 Genetic Diversity of *Salmonella enterica* Serovar Rubislaw Isolated in the U.S. – **Rakib Ehsan**, Virginia Tech, Blacksburg, VA, USA, Rachel Cheng, Virginia Tech, Ithaca, NY, USA

P3-177 Population Dynamics of *Cronobacter sakazakii* and Native Microbiota in Powdered Infant Formula during Enrichment – **Jodie Ulaszek**, Illinois Institute of Technology, Institute for Food Safety and Health, Bedford Park, IL, USA, Joelle Salazar, FDA, Bedford Park, IL, USA, Emily Smith, ORISE - FDA, Bedford Park, IL, USA, Diana Stewart, FDA, Summit-Argo, IL, USA

P3-178 Comparative Transcriptomics of *Salmonella* Heidelberg, Typhimurium and Monophasic Typhimurium Reveals Differential Expression of Stress Tolerance, Virulence, and Biofilm-Associated Genes – **Andrea Etter**, The University of Vermont, Burlington, VT, USA, Calleigh Herren, The University of Vermont, Burlington, VT, USA, Chelsey Patch, University of Vermont, Burlington, VT, USA

Developing Scientist Competitor Undergraduate Student Competitor

POSTER SESSIONS

P3-179 Genotypes of Multidrug-Resistant Phenotype Bacteria Isolated from Urban Farms – **Erin Harrelson**, University of Maryland, College Park, MD, USA, Ryan Blaustein, University of Maryland, College Park, MD, USA, Mairui Gao, University of Maryland, College Park, MD, USA, Qingyue Zeng, University of Maryland, College Park, MD, USA

P3-180 Exploring the Microbial Quality and Geographic Influence on the Ethiopian Raw Milk Microbiome – **M. Laura Rolon**, California Polytechnic State University, San Luis Obispo, CA, USA, Katja Friess, California Polytechnic State University of San Luis Obispo, San Luis Obispo, CA, USA, Abera Admasie, Arba Minch University, Arba Minch, Ethiopia, Jasna Kovac, The Pennsylvania State University, University Park, PA, USA, Ashagrie Zewdu, Addis Ababa University, Addis Ababa, Ethiopia

P3-181 Phenotypic and Genotypic Characterization of Aerotolerance in *Campylobacter* Species Isolated from Commercial Broiler Chickens at Slaughter – **Elizabeth McMillan**, USDA-ARS, US National Poultry Research Center, Athens, GA, USA, Mark Berrang, USDA-ARS (retired), Athens, GA, USA, Steven Knapp, USDA-ARS (retired), Athens, GA, USA, Richard Meinersmann, USDA-ARS, US National Poultry Research Center, Athens, GA, USA, Tanisha Robinson-McKenzie, APHIS, Washington, D.C., USA

P3-182 Metagenomic Analysis of the Microbial Community of an Experimental Hydroponic System Growing Leafy Greens – **Taylor Richter**, FDA, Laurel, MD, USA, Seth Commichaux, FDA, Laurel, MD, USA

P3-183 *Salmonella* Serovar Infantis REPJFX01 Isolates Harbor a pESI Plasmid Containing Additional Genes not Found in pESI Present in Closely Related Non-Rep Strains – **Anna Schumann**, Cornell University, Ithaca, NY, USA, Renato Orsi, Cornell University, Ithaca, NY, USA, Martin Wiedmann, Cornell University, Ithaca, NY, USA

P3-184 Genomic Analysis of *Staphylococcus aureus* Strains Isolated from a Dairy Farm in Texas – **Jennifer Miller**, FDA, Human Foods Program, Division of Food and Environmental Safety, College Park, MD, USA, Guojie Cao, US FDA, College Park, MD, USA, Alexandra Calle, Texas Tech University, Amarillo, TX, USA, Zhao Chen, Joint Institute for Food Safety and Applied Nutrition, College Park, MD, USA, Christopher Grim, FDA, College Park, MD, USA, Angela Perdomo, Texas Tech University, Amarillo, TX, USA, Sanda Tallent, FDA, College Park, MD, USA, Lanlan Yin, US FDA, College Park, MD, USA

P3-185 Pangenome Analysis of *Listeria*: Basis for Identification of Species and Serotype-Specific Genetic Markers for Molecular Diagnostics – **Viona Osei**, Tuskegee University, Tuskegee, AL, USA, Woubit Abebe, Tuskegee University, Tuskegee, AL, USA, Kingsley Bentum, Tuskegee University, Tuskegee, AL, USA, Emmanuel Kuufire, Tuskegee University, Tuskegee, AL, USA, Rejoice Nyarku, Tuskegee University, Tuskegee, AL, USA, Temesgen Samuel, Tuskegee University, Tuskegee, AL, USA

P3-186 Development and Optimization of a Targeted Amplicon Sequencing Assay for Early Detection and Rapid Fingerprinting of *Cronobacter* Strains from Food Samples – **Gopal Gopinath**, FDA, College Park, MD, USA, Rachel Binet, U.S. FDA, College Park, MD, Eric Brown, FDA-Human Foods Program, College Park, MD, USA, Yi Chen, US FDA, College Park, MD, USA, Xiaohong Deng, FDA/Human Food Program, College Park, MD, USA, Roberto Guzman, FDA-CFSAN, Bowie, MD, USA, Hee Jin Kwon, University of Maryland, College Park, MD, USA, Jolie LiJolie Li, University of Maryland, Berwyn Heights, MD, USA

P3-187 Development and Succession of Microbial Communities on the Leaf Surface of Leafy Greens in Response to Post-Harvest Processing Treatments – **Miranda Barr**, University of Georgia, Athens, GA, USA, Hendrik Den Bakker, Center for Food Safety, University of Georgia, Griffin, GA, USA, Amy Mann, University of Georgia, Griffin, GA, USA, Amrit Pal, University of Georgia, Griffin, GA, USA

P3-188 Microbiome Analysis of Nutrient Solution and Bok Choy in Five Different Hydroponic Systems across Seasons – **Auja Bywater**, Penn State University, State College, PA, USA, Francesco Di Gioia, Penn State University, University Park, PA, USA, Jasna Kovac, The Pennsylvania State University, University Park, PA, USA, Aline Novaski, Penn State University, University Park, PA, USA

P3-189 Transcriptomic Analysis of *Salmonella enterica* Serovar Typhimurium in Response Blue Light with a 405 nm Wavelength – **Minji Hur**, University of Georgia, Griffin, GA, USA, Francisco Diez, University of Georgia, Griffin, GA, USA

P3-190 High Resolution and User-Friendly Microbial and Viral Genotyping in a Single PCR-Ready-to-Sequence Format – **Baback Gharizadeh**, Chapter Diagnostics, Menlo Park, CA, USA, Zhihai Ma, Chapter Diagnostics, Menlo Park, CA, USA, Chunlin Wang, Chapter Diagnostics, Menlo Park, CA, USA

P3-191 Impact of Antibiotic Application and Water Temperature on the Resistome and Microbiome Dynamics in Catfish Gut – **Luxin Wang**, University of California-Davis, Davis, CA, USA, Xiran Li, University of California-Davis, Davis, CA, USA, Xiran Li, UC Davis, Davis, CA, USA, Hisham Abdelrahman, Alabama Fish Farming, Davis, CA, USA, Hisham Abdelrahman, Alabama Fish Farming Center, Greensboro, AL, USA, Anita Kelly, Alabama Fish Farming Center, Greensboro, AL, USA, Luke Roy, Alabama Fish Farming Center, Greensboro, AL, USA

P3-192 Prevalence and Characteristics of Extended Spectrum Beta-Lactamase Producing *Enterobacteriaceae* in Poultry and Leafy Green Farm Environmental Samples – **Soo-Ah Lee**, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Hojin Choi, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Eun-Ah Jung, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, Hyunsook Kim, Department of Food & Nutrition, College of Human Ecology, Hanyang University, Seoul, South Korea, San-Yi Kim, Center for One Health, Department of Veterinary Public Health, College of Veterinary Medicine, Konkuk University, Seoul, South Korea, So-Yeon Kwon, Konkuk University, Seoul, Korea (the Republic of), Kun-Ho Seo, Konkuk University, Gwangjin-gu, Seoul, Korea (the Republic of)

P3-193 Optimizing Oxford Nanopore Workflows for Accurate Enteric Disease Surveillance – **Heather Carleton**, Centers for Disease Control and Prevention, Atlanta, GA, USA, Jessica Chen, Centers for Disease Control and Prevention, Decatur, GA, USA, Britton Henderson, ORISE, Oak Ridge, TN, USA, Lee Katz, Centers for Disease Control and Prevention, Atlanta, GA, USA, Justin Kim, ASRT Inc., Smyrna, GA, USA, Krittika Krishnan, ASRT Inc., Smyrna, GA, USA, Ryan Paradis, ORISE, Oak Ridge, TN, USA, Arzoo Patel, ASRT Inc., Smyrna, GA, USA

P3-194 Genetic Diversity and Antimicrobial Resistance in Mastitis Associated *Escherichia coli* Isolates – **Anna Acosta**, The Pennsylvania State University, University Park, PA, USA, Edward Dudley, Penn State University, University Park, PA, USA

P3-195 Development of an Innovative Workflow for Real-Time PCR Detection of Foodborne Pathogens – **Anthony Zoropogui**, Bio-Rad Laboratories, Marnes-La-Coquette, France, Laurent Jain, Bio-Rad Laboratories, Marnes-La-Coquette, France, Arnaud Briet, Bio-Rad Laboratories, Marnes-La-Coquette, France, Adelaide Leveau, Bio-Rad Laboratories, Marnes-La-Coquette, France Sophie Pierre, Bio-Rad, Marnes-La-Coquette, France, Christophe Quiring, Bio-Rad, Marnes-La-Coquette, France, Emeline Wilmann, Bio-Rad Laboratories, Marnes-La-Coquette, France

P3-196 Evaluation of Microbiomes and Phytonutrient Profiles of Outredgeous Lettuce (*Lactuca* Sativa) Grown in Soilless and Soil-Based Systems – **Salina Parveen**, University of Maryland Eastern Shore, Princess Anne, MD, USA, Hossain Azam, University of the District of Columbia, Washington, D.C., USA, Christopher Grim, FDA, College Park, MD, USA, Nur Hasan, EzBiome Inc., Gaithersburg, MD, USA, Fawzy Hashem, University of Maryland Eastern Shore, Princess Anne, MD, USA, Jonas Lee, University of the District of Columbia, Washington, D.C., USA, Pat Millner, USDA, Beltsville, MD, USA, Byunrok MIN, University of Maryland Eastern Shore, Princess Anne, MD, USA

P3-197 Exploring the Antimicrobial Resistance of Diarrheagenic *Escherichia coli* from Southern Africa Using Whole Genome Data – **Josphat Njenga Gichure**, University of Pretoria, Pretoria, University of South Africa, Elna Buys, University of Pretoria, Hatfield, Gauteng, South Africa, Tine Hald, Technical University of Denmark, Lyngby, Denmark

POSTER SESSIONS

P3-198 Impact of Biological Soil Amendments of Animal Origin, Including Heat-Treated Poultry Pellets and Seabird Guano on the Soil Microbiome in California – **Min-Jin Kwak**, University of Florida, Gainesville, FL, USA, Bugil Choi, University of Florida, Gainesville, FL, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA, Michele Jay-Russell, University of California-Davis, Davis, CA, USA, Kwangcheol Jeong, University of Florida, Gainesville, FL, USA, Katherine Kim, University of Florida, Gainesville, FL, USA, Sriniwas Pandey, University of Florida, Gainesville, FL, USA, Manan Sharma, USDA/ARS, Beltsville, MD, USA

P3-199 A New *L. monocytogenes* Strain Typing Method, GENE-UP® TYPER, Can Provide High-Resolution Strain Typing in as Little as 24 H – **Catharine Carlin**, Mérieux NutriSciences, Crete, IL, USA, Cameron Parsons, Mérieux NutriSciences, Chicago, IL, USA

P3-200 Decoding Treatment and Environmental Effects on Soil Microbiomes and Foodborne Pathogen Surviving across Geographic Regions with Machine Learning – **Yuting Zhai**, University of Florida, Gainesville, FL, USA, Charles Bency Appolon, University of Georgia, Athens, GA, USA, Cameron Bardsley, USDA-ARS SE Fruit and Tree Nut Research Unit, Byron, GA, USA, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA, Laurel Dunn, University of Georgia, Athens, GA, USA, Kwangcheol Jeong, University of Florida, Gainesville, FL, USA, Karuna Kharel, Louisiana State University AgCenter, Baton Rouge, LA, USA, Sriniwas Pandey, University of Florida, Gainesville, FL, USA

P3-201 Proteostasis and Strain-Specific Variation Underlie Antibiotic Tolerance in *Campylobacter jejuni* in The Food Supply Chain – **Shenmiao Li**, McGill University, Vaudreuil-Dorion, QC, Canada, Chen Chen, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Yi Chen, McGill University, Sainte-Anne-de-Bellevue, QC, Canada, Xiaonan Lu, McGill University, Sainte-Anne-de-Bellevue, QC, Canada

P3-202 Characterization of Antibiotic Resistance in *Escherichia coli* from Meat Products and Human Samples in Botswana Using Molecular and Whole-Genome Approaches – **Saehah Yi**, Virginia Tech, Blacksburg, VA, USA, Kathleen Alexander, Virginia Tech, Blacksburg, VA, USA, Auja Bywater, Penn State University, State College, PA, USA, Andrew Cameron, University of Regina, Regina, SK, Canada, Galaletsang Dintwe, Virginia Tech, Blacksburg, VA, USA, Thomas Haidl, University of Regina, Regina, SK, Canada, Monica Ponder, Virginia Tech, Blacksburg, VA, USA

P3-203 Globally Integrated *Salmonella* Serotype Tracking Using Oxford Nanopore Technologies Long-Read Sequencing – **Andrzej Benkowski**, Eurofins Microbiology Laboratories, Madison, WI, USA, Glen Calvar, Eurofins Laboratoire de Microbiologie Ouest, Nantes, France, Romain Chauvet, Eurofins Laboratoire de Microbiologie Ouest, Nantes, France, Simon Covin, Eurofins Laboratoire de Microbiologie Ouest, Nantes, France, David Legan, Eurofins Scientific Inc., Madison, WI, USA, Emily Schmitt, Eurofins Microbiology Laboratories, Madison, WI, USA

P3-204 Comparative Genomic Analysis Reveals Host-Associated Variation of *Campylobacter jejuni* – **Mairui Gao**, University of Maryland, College Park, MD, USA, Ryan Blaustein, University of Maryland, College Park, MD, USA

P3-205 Heterogeneity of Microbial and Volatile Profiles of Retail Kimchi Susceptible to Antibiotic Resistance – **Toby Yao**, The Ohio State University, Columbus, OH, USA, Sheryl Barringer, The Ohio State University, Columbus, OH, USA, Manpreet Kaur, The Ohio State University, Columbus, OH, USA, Yutong Li, Ohio State University, Columbus, OH, USA, Hua Wang, The Ohio State University, Columbus, OH, USA

P3-206 Bacterial Abundance and Taxonomic Profiling Analysis of Beef Lymph Nodes and Digesta Using Whole Genome Shotgun Sequencing – **Brayan Montoya**, Texas Tech University, Lubbock, TX, USA, Mindy Brashears, Texas Tech University, Wolfforth, TX, USA, Mohammed Fokar, Texas Tech University, Lubbock, TX, USA, Markus Miller, Texas Tech University, Lubbock, TX, USA, Kendra Nightingale, Texas Tech University, Lubbock, TX, USA, Marcos Sanchez, Texas Tech University, Lubbock, TX, USA

P3-207 Genome-Wide Analysis of Cadmium-Resistance Genes Harbored by Cadmium-Resistant *Listeria monocytogenes* Strains from Sweden – **Sangmi Lee**, Chungbuk National University, Cheongju, South Korea, Phillip Brown, North Carolina State University, Raleigh, NC, USA, Yi Chen, US FDA, College Park, MD, USA, Marie-Louise Danielsson-Tham, Örebro University, Örebro, Sweden, Sophia Kathariou, North Carolina State University, Raleigh, NC, USA, Gloria Lopez-Valladares, Örebro University, Örebro, Sweden, Wilhelm Tham, Örebro University, Örebro, Sweden

P3-208 Determination of Spoilage Microbiota of Atlantic White Shrimp (AWS) Using 16S Shotgun Sequencing as an Alternative Method to the Standard Quality Evaluation during the Cold Chain – **Imran Ahmad**, Florida International University, North Miami, FL, USA, Muhammad Bilal Sadiq, Forman Christian College, Lahore, Pakistan

P3-209 A Portable Device for Offline, Efficient, and Scalable Profiling of Foodborne Pathogen Genomes – **Tongzhou Xu**, University of Georgia, Griffin, GA, USA, Hendrik Bakker, University of Georgia, Griffin, GA, USA, Xiangyu (Sean-U) Deng, University of Georgia Center for Food Safety, Marietta, GA, USA, Lee Katz, Centers for Disease Control and Prevention, Atlanta, GA, USA

P3-210 Implications of Nanoscale Agrochemicals on Microbiome Evolution in Agri-Food Systems – **Sherry Bansal**, University of Florida, Gainesville, FL, USA, Xin Liu, University of Florida, Food Science and Human Nutrition Dept., Citrus Research and Education Center, Lake Alfred, FL, USA, Amarat Simonne, University of Florida, Gainesville, FL Yu Wang, University of Florida, Food Science and Human Nutrition Dept., Citrus Research and Education Center, Lake Alfred, FL, USA, Kathrine Witrick, University of Florida, Gainesville, FL, USA, Boce Zhang, University of Florida, Gainesville, FL, USA

P3-211 Genomic Landscape of *Salmonella enterica* Reveals Adaptive Associations with Fresh Produce – **Ahmed Abdelhamid**, Michigan State University, East Lansing, MI, USA

P3-212 Genomic Characterization of H2S-Negative *Salmonella* Typhimurium 4:i:1,2 Isolate from Calf Feces in the USA – **Kingsley Bentum**, Tuskegee University, Tuskegee, AL, USA

P3-213 Investigating the Effect of Different Concentrations of Citric Acid on *Listeria monocytogenes* and *E. coli* O157:H7 in Fermented SPI Systems with Dairy as a Control – **Adina Arshad**, University of Massachusetts, Amherst, MA, USA, Rabia F. Shamim, University of Massachusetts, Amherst, MA, USA, Julia Fukuba, University of Massachusetts Amherst, Amherst, MA, USA, Akio Kasuga, University of Massachusetts, Amherst, MA, USA, Amanda Kinchla, Univeristy of Massachusetts, Amherst, MA, USA, Wilton Mok, University of Massachusetts, Amherst, MA, USA, Matthew Moore, University of Massachusetts Amherst, Worcester, MA, USA

P3-214 High Pressure Processing (HPP) Effects on Microbial Loads of Meat-Based, Plant-Based and Hybrid Patties – **Sampathkumar Balamurugan**, AAFC - Agriculture and Agri-Food Canada, Guelph, ON, Canada, Shai Barbut, University of Guelph, Guelph, ON, Canada, Philip Strange, Agriculture and Agri-Food Canada, Guelph, ON, Canada, Chaoyue Wang, University of Guelph, Guelph, ON, Canada

P3-215 Effect of Extrusion Processing on the Allergenicity and Anti-Nutritional Factors of Lima Beans Flour (*Phaseolus lunatus* L.) Produced in Delaware, USA – **Hui Ru Tan**, University of Delaware, Newark, DE, USA, Juzhong Tan, University of Delaware, Newark, DE, USA, Yiwen Cheng, University of Delaware, Newark, DE, USA, Qinchun Rao, Florida State University, Tallahassee, FL, USA

P3-216 Plant-Based Meat Products: Determination of Microbial Quality for Consumers under Varying Handling Conditions – **Mahta Moussavi**, Prairie View A&M University, Cypress, TX, USA, Javad Barouei, Prairie View A&M University, Prairie View, TX, USA, Jennifer Quinlan, Prairie View A&M University, Prairie View, TX, USA

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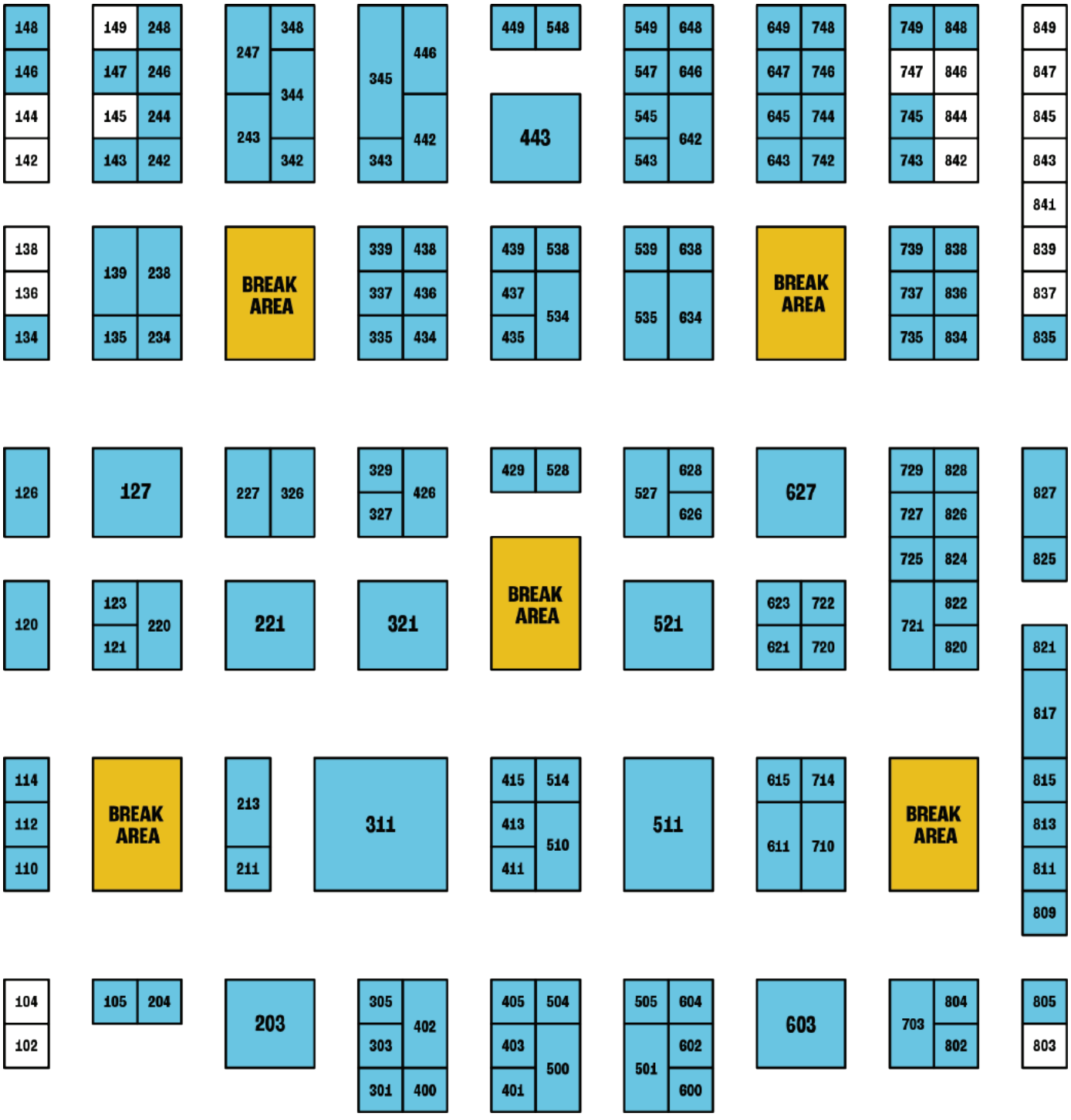

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CCHYSAN also provides consulting services on sanitation (sanitation program development and improvements, customized hands-on Food Safety assessments focusing on sanitation, hygienic design, hygienic zoning and recommending solutions to improve the opportunities), hygienic design review, sanitation strategy development, pathogen mitigation and remediation strategies.

We have what you need! Let's partner for an effective and efficient sanitation at your factories. We can be reached at 508.494.6307 and ccaban@cchysan.com.

CDG Environmental, LLC **548**
361 W Cedar St.
Allentown, PA 18102, USA
Phone: +1 484.735.0683
www.cdgenvironmental.com

CDG Environmental, LLC is the manufacturer of CDG Solution 3000, a storage-stable chlorine dioxide aqueous solution. There is no need for generation or mixing. Solution 3000 is Organic, Kosher, and Halal certified and may be used for food contact/nonfood contact sanitization. Solution 3000 has several FCNs. Solution 3000 has U.S. government approvals and certifications, including U.S. EPA-FIFRA registrations, registrations in fifty states and Puerto Rico. Solution 3000 is certified as NSF D2, G5, G7, and is NSF ANSI 60 certified as a drinking water additive. Effective against HPAI, *Listeria, E. coli, Staphylococcus, Salmonella, Pseudomonas,* plus many others.

Charm Sciences, Inc. **500**
659 Andover St.
Lawrence, MA 01843, USA
Phone: +1 978.722.1430
www.charm.com

Charm Sciences is a world leader in food safety diagnostics. Charm's two-pronged Sanitation Monitoring Program ensures the highest level of food safety, quality control, and audit compliance using the novaLUM® II-X System and Charm Peel Plate® Microbial Tests with Colony Counter. Charm offers eBacMap Data Mapping & Trending software to link ATP sanitation, microbial indicators, and pathogen test results onto a 3D facility map and time-lapse hot spots. Rely on Charm Sciences for excellence in quality, innovation, and sensitivity to protect your brand!

Check-Points B.V. **439**
Binnenhaven 5
Wageningen, Gelderland 6709 PD, Netherlands
Phone: +31.0317.453908
www.check-points.com

Check-Points' innovative Check&Trace Salmonella 2.0 can discriminate the 105 most relevant Salmonella serotypes including S.Enteritidis and S.Typhimurium. A genetic "barcoding" principle is used employing a single real-time PCR Assay. Check&Trace *Salmonella* 2.0 confirms *Salmonella* presence and calls the serotype within 2 hours starting from bacterial colonies on agar media. It has been certified by Microval and AOAC (59 serovars approved and 46 pending) as being equivalent to ISO-6579_1 for confirmation and ISO-6579_3 for serotyping of *Salmonella*. This allows the Check&Trace *Salmonella* 2.0 to significantly decrease serotyping lead times enabling quick tracing in the food production chain. More info via www.checkandtrace.com.

ChemStation International **826**
3400 Encrete Lane
Dayton, OH 45439, USA
Phone: +1 513.435.6686
https://chemstation.com

ChemStation proudly specializes in providing our customers with high-quality industrial cleaning chemicals using a unique system of delivery into refillable containers, bringing safety, sustainability, and local service right to your door. With our "Refill Not Landfill" approach, ChemStation is "Keeping it Clean."

EXHIBITORS

Clean Works Inc. **748**
453 Eastchester Ave. E
St. Catharine, ON L2M 6S2, Canada
Phone: +1 559.994.6220
www.cleanworkscorp.com

Clean Works offers post-harvest solutions. Our award-winning gas-phase homogenous technology has been rigorously tested and has consistently demonstrated its effectiveness in eliminating up to 99.99% of pathogens and food-spoiling organisms, ensuring your produce is safe and fresh. We have successfully commercialized our technology in six countries, making a global impact.

Our solutions offer rapid, chemical-free decontamination, setting new benchmarks for efficiency, effectiveness, and sustainability.

What sets us apart?

- Water-free technology
- Green, eco-friendly approach
- Commercial-grade applications
- Scientifically validated excellence

Harnessing the power of science and technology, discover how Clean Works is transforming the produce industry: www.https://cleanworkscorp.com

ClorDiSys **400**
50 Tannery Road, Suite 1
Branchburg, NJ 08876, USA
Phone: +1 908.236.4100
www.clordisys.com

ClorDiSys Decon+ offers chlorine dioxide gas for best-in-class contamination control. Offering a completely dry process with no residues to eliminate persistent pathogens, and perform clean breaks.

CMX1 **643**
4180 La Jolla Village Dr., #570
La Jolla, CA 92037, USA
Phone: +1 512.638.5511
https://www.cmx1.com

CMX1 empowers food safety professionals to ensure brand protection, quality, and safety at every location or facility. Trusted by the world's leading brands, our powerful digital platform streamlines and automates food safety and quality assurance processes, enforces brand standards, and centralizes reporting for real-time insights.

Whether it's audits, checklists, corrective actions, recall management, or supplier management, CMX1 eliminates inefficiencies and guesswork—so organizations can focus on staying compliant, protecting consumers, and growing their business. Stop by booth 643 to learn more about how CMX1 is driving everyday excellence and transforming how safety and compliance are managed in the field.

Cornerstone Flooring **743**
8781 Motorsports Way
Brownsburg, IN 46112, USA
Phone: +1 317.852.6522
www.cornerstoneflooring.com

Cornerstone Flooring, in business for 33 years, is the nation's largest single-source manufacturer and installer of high-performance resinous flooring systems. Engineered for versatility and functionality, our flooring systems last up to four times longer than conventional flooring options and meet the demands of every industry we service. Our diverse customer base includes Fortune 500 companies in food and beverage, pharmaceutical, aeronautical, industrial and biotech markets. From concept and planning to implementation and post-installation inspections, our team of technical experts will directly manage your project. We have more than five decades of experience in innovative research, development, and installation.

Crystal Diagnostics **443**
510 Compton St., Suite 106
Broomfield, CO 80020, USA
Phone: +1 720.352.1813
www.crystaldiagnostics.com

Crystal Diagnostics showcases the power of Liquid Crystal Technology through LC's Arsenal—our complete platform for modern pathogen detection. Featuring the AccuPath and AccuPath Max systems, along with specialized consumables like assays, antibody kits, and proprietary sample slides. This solution delivers fast visual detection of viable pathogens without enzymes or DNA amplification. By eliminating false positives from dead cells and avoiding PCR-related complications, our technology offers a new level of clarity and confidence. Visit Booth #443 at IAFP 2025 to explore science, experience technology, and meet the team driving the next generation of food safety innovation.

CultureMediaConcepts® **204**
970 E Orangethorpe Ave., Unit A
Anaheim, CA 92831, USA
Phone: +1 714.773.1726
www.culturemediaconcepts.com

CultureMediaConcepts® is an independent manufacturer of Culture Media and Reagents utilized in Microbiological testing. Testing for foodborne pathogens requires specified culture media formulations recommended by the methodology used, the testing platform, or governing agency. We specialize in formatting Culture Media formulations for your specific needs. Our SampleReady® line of Prepared DCM, offers a RTU format that will eliminate steps and save you hours to results. The DiluteReady® line provides a pre-filled dilution sample bag of prepared culture media for this same purpose. Please come by and allow us to show you how you can save time-to-results.

EXHIBITORS

Deibel Laboratories **703**
7198 South Beneva Road
Sarasota, FL 34231, USA
Phone: +1 224.933.6712
www.deibellabs.com

Deibel Laboratories has supported North American food producers for over 50 years with expert microbiological, chemical, and allergen testing. Our ISO 17025-accredited labs offer pathogen detection, shelf-life studies, environmental monitoring, allergen testing, and nutritional labeling. We collaborate closely with clients to ensure compliance with FDA, USDA, and other regulations. Our subject matter experts guide manufacturers through product development, process optimization, and raw ingredient verification. Deibel Laboratories has supported North American food producers for over 50 years with expert microbiological, chemical, and allergen testing. From concept to consumer, Deibel Laboratories provides critical insights and services at every stage of the production cycle, helping food, feed, and consumer products manufacturers deliver safe, high-quality, and fully compliant products to market with confidence.

Detectamet Detectable Products **527**
5111 Glen Alden Dr.
Richmond, VA 23231, USA
Phone: +1 804.588.2473
www.detectamet.com

Detectamet manufactures a wide range of metal and X-ray detectable products designed to reduce foreign matter contamination in food, beverage, and pharmaceutical production. From detectable pens and gloves to cleaning tools and PPE, our solutions support HACCP, BRCGS, and FSMA compliance. Visit our booth to explore our latest innovations and see how Detectamet can help you protect your product, your people, and your brand.

DNV **725**
1400 Ravello Dr.
Katy, TX 77449, USA
Phone: +1 281.685.0908
www.dnvcert.com

Eagle Protect PBC **149**
3079 Harrison Ave., #21
South Lake Tahoe, CA 96150, USA
Phone: +1 415.954.2262
www.eagleprotect.com

Eagle Protect, the world's first B Corp certified disposable glove and clothing specialist, supplies high-quality, ethically sourced products, via a transparent and traceable supply chain, unique to the PPE industry. Eagle Protect's proprietary Delta Zero glove quality testing program ensures a range of Eagle gloves adhere to the highest level of consistent glove safety and performance. Eagle's premium quality gloves enable customers to reduce overall glove cost while increasing overall efficiency and sustainability.

eBacMap **802**
10653 Progress Way
Cypress, CA 90630, USA
Phone: +1 714.657.7527
www.ebacmap.com

eBacMap® is a cloud-based, patented, mapping, tracking, and trending software tool that helps food manufacturers and other regulated manufacturers organize, visualize, and analyze findings that could indicate risk to your business.

eBacMap® will create heat maps of your manufacturing facility allowing organization of Environmental Pathogen Data for visualization of the physical location and frequency of contamination. Identifying patterns in non-conforming test results will allow your Facility Action Team the opportunity to recognize recurrences, spread patterns, and understand overall data relationships more easily. Stop by booth #802 to meet the eBacMap creator and schedule a demo.

Ecolab **837**
1 Ecolab Place
St. Paul, MN 55102, USA
Phone: +1 612.384.9926
www.ecolab.com

Electrosteam Generator Corp **342**
50 Indel Ave.
Rancocas, NJ 08073, USA
Phone: +1 609.267.0922
www.electrosteam.com

Electro-Steam, Food Safety Division is changing the way food processors are cleaning and sanitizing equipment and facilities with the Eagle Series portable dry vapor systems. Made right here in the USA since 1952 to strict ASME certifications and UL listed. All of our Eagle Series units will;

- Eliminate chemical usage
- Improve cleaning and sanitization
- Drastically reduce water consumption by 95% to 99%
- No waste water to the drain
- Reduce labor
- Minimize and eliminate water damage to electrical and sensitive equipment components
- Minimize hazards associated with slips, trips, and falls from water on the floor

User friendly and safe to use!

Eurofins **426**
2120 Rittenhouse St., Suite A
Des Moines, IA 50321, USA
Phone: +1 515.250.1121
https://www.eurofinsus.com/food-testing/

Eurofins is the leader in food, feed and supplement testing, support, and development services. Whether you are a supplier, processor, manufacturer, packer, distributor, or retailer, we know that your bottom line depends on top-of-the-line service from your industry partners. Our laboratory network offers integrated solutions that span your products' entire life cycle. Eurofins delivers testing, consulting, and development services from concept to commercialization, including potency, nutrition, and contaminant analysis, food safety testing, consulting, and training. Our global network comprises diverse teams of leading scientists who provide a broad range of resources, experience, and expertise that enable our customers to bring innovative, sustainable, safe products to market faster.

EXHIBITORS

Extreme Microbial Technologies **329**
2800 E River Road, Suite A
Moraine, OH 45439, USA
Phone: +1 513.313.6210
www.extrememicrobial.com

At Extreme Microbial Technologies (EMT), we take immense pride in the expertise and dedication of our team. Committed to advancing the field of microbial detection and identification, our team members bring a wealth of knowledge and experience to the table. Our professionals are passionate about creating innovative solutions, including BAMS (Bio-Aerosol Monitoring System), MAK-TWIN™ units, MAK-9™, and MAK-Inline™. These cutting-edge products are designed for use in both residential and commercial facilities, addressing the critical need to dramatically reduce mold, mildew, fungus, volatile organic compounds (VOCs), and a host of bacteria, viruses, and other contaminants.

FlexXray **710**
3751 New York Ave., Suite 130
Arlington, TX 76014, USA
Phone: +1 443.910.7431
www.flexxray.com

Food Safety CTS
1320 Goodyear Dr., Suite 205
El Paso, TX 79936, USA
Phone: 864.633.6325
www.foodsafetycts.com

Food Safety Experts **746**
Schapendijk 7
Holten, Overijssel 7451KT, Netherlands
Phone: +31.652.764.050
https://www.foodsafety-experts.com

Food Safety Experts actively helps businesses achieve food safety excellence. With over 35 years of experience, the company provides training, workshops and coaching to individuals and companies. Their experts guide clients in food safety management and crisis management, serving companies nationally and internationally to ensure food quality. Next to this they market Valid8Food: a unique AI-based platform for supplier documentation review.

Food Safety Magazine **621**
550 W Merrill St., Suite 200
Birmingham, MI 48009, USA
Phone: +1 248.786.1671
https://www.food-safety.com/

Food Safety Magazine (FSM) is the leading provider of content serving food safety/quality professionals worldwide and producer of the annual Food Safety Summit Conference & Expo. FSM publishes a bimonthly eMagazine and weekly eNewsletter featuring original articles from food and beverage industry leaders covering regulations, technologies, trends, and management strategies essential when applying science-based solutions to assure food safety and quality. Our popular *Food Safety Matters* podcast offers twice monthly episodes featuring news and trends, followed by a conversation with a food safety professional sharing their experiences and insights. Visit our website www.food-safety.com to learn more and subscribe.

Food Safety News **549**
227 West Hamilton Lane
Battle Creek, MI 49015, USA
Phone: +1 913.205.3791
www.foodsafetynews.com

Visit Food Safety News, the trusted source delivering vital food safety coverage since 2009. Our award-winning team reports on recalls, outbreaks, regulations, and research that impact our global food supply. Stop by to learn about FSN Daily, our 5-minute morning briefing keeping 44,000+ subscribers informed on crucial food safety developments. Industry partners: meet our leadership team to discuss targeted advertising opportunities reaching our engaged audience of food safety professionals, government officials, and conscious consumers. Join the community that makes food safety awareness a priority every morning.

Food Safety Preventive Controls Alliance (FSPCA) - IFSH **246**
6502 South Archer Road
Bedford Park, IL 60501, USA
Phone: +1 708.243.2326
https://www.fspca.net/

The Food Safety Preventive Controls Alliance (FSPCA) is the most trusted source of education and training programs for U.S. food manufacturers, importers, foreign suppliers, and food safety professionals around the world wanting to understand and use one or more of the prevention-oriented standards of the Food Safety Modernization Act (FSMA).

FSPCA's mission is to assist the food industry and related entities in building food safety capacity through education, training and outreach with an emphasis on small-, and medium-sized businesses.

Food Safety Summit **623**
550 W Merrill St., Suite 200
Birmingham, MI 48009, USA
Phone: +1 248.283.9569
https://www.food-safety.com/food-safety-summit

The Food Safety Summit brings together food safety professionals from across the entire supply chain to gain valuable insights into technology advancements, regulatory developments, trends in contamination control, and effective food safety program management. Attendees collaborate with top-tier suppliers to discuss applications of the latest equipment and technology, ensuring they have the best tools for their specific needs. The Summit is truly where food safety meets for practical solutions.

Food SMART Strategies Intl. (FSSI) **646**
100 N. Brand Blvd., 306
Glendale, CA 91203, USA
Phone: +1 213.999.0138
www.foodsmartstrategies.com

Food SMART Strategies International (FSSI) is your comprehensive partner in navigating food industry audits with ease and excellence. We specialize in preparing businesses for audits, ensuring compliance with regulations, and providing unwavering support throughout the entire process. From meticulous preparation to seamless implementation and beyond, we're committed to guiding you towards success and safeguarding your reputation. Trust Food SMART Strategies to elevate your audit experience and ensure your continued excellence in passing your food audits!

EXHIBITORS

Foods Connected **138**
169 Madison Ave., Suite 2328
New York, NY 10016, USA
www.foodsconnected.com

Foods Connected's end-to-end software solutions simplify the food industry supply chain, optimizing spend and unlocking the data food and drink businesses need to excel.

Our tools are utilized by hundreds of leading food businesses globally, including ten of the world's largest retailers. We work with them to stay on budget, audit ready and food safety compliant, while managing and reporting on yields, traceability, product lifecycle management, procurement, quality control, and sustainability.

Fast to roll out and even easier to use, our customers call us "innovative," "adaptable," and "efficient," because we help them connect each stage of their supply chain journey.

FranConnect **411**
13865 Sunrise Valley Dr., Suite 150
Herndon, VA 20171, USA
Phone: +1 817.937.4693
www.franconnect.com

FranConnect is the leading enterprise software provider for franchise and multi-location businesses. For over 20 years, the FranConnect platform has served as the backbone for sales, operations, and marketing for over 1,500 brands and one million locations worldwide. Iconic brands such as SPARC/Authentic Brands (Forever 21), Tropical Smoothie Café, Authority Brands, and Papa John's rely on FranConnect to expand locations, streamline unit operations, enhance collaboration, and improve profitability. Backed by private equity investor Serent Capital, FranConnect is headquartered in Herndon, Virginia, with global offices in Australia, India, Colombia, and Canada.

FREMONTA Corp. **402**
466 Kato Terrace
Fremont, CA 94539, USA
Phone: +1 510.979.1979
www.microtally.com

MicroTally® is a leader in the food safety industry, recognized as the #1 brand in food safety sampling. The MicroTally® Swab is the USDA/FSIS's preferred method for beef sampling, setting the benchmark for reliability. Through collaborations with industry and regulatory agencies, MicroTally® continuously innovates sample collection methods, delivering high-quality products made in the USA. As an ISO 9001:2015 certified company, we set the standard with advanced materials and patented designs, ensuring efficiency, ease of use, and superior pathogen recovery. Transition to the future of food sampling with MicroTally®.

FSNS - A Certified Group Company **521**
199 W Rhapsody
San Antonio, TX 78216, USA
Phone: +1 218.428.6552
https://fsns.com/

As part of Certified Group, Food Safety Net Services and Certified Laboratories partner with customers to deliver innovative scientific solutions and expertise – So The World Can Trust In What It Consumes™. Our North American network of 30+ ISO 17025-accredited labs serve many regulated industries, including beef, dairy, poultry, pet food, spices, seafood, nuts, produce, FDA imports, and ready-to-eat foods. In addition, our Lab+ division performs contract research studies, such as process validations, shelf-life studies, challenge studies, and more serving a full range of food and beverage manufacturers.

Gold Standard Diagnostics **344**
795 Horsham Road
Horsham, PA 19044, USA
Phone: +1 267.784.5689
www.goldstandarddiagnostics.com

Gold Standard Diagnostics is an innovative global leader in the production of high-quality rapid, food test kits designed to detect a wide range of contaminants. Our comprehensive testing solutions address critical safety and quality concerns in various food industries by identifying pathogens, allergens, mycotoxins, GMOs, VDRs, pesticides, and more.

We offer a diverse array of testing methods, including lateral flow tests, ELISA, PCR and culture media and advanced instruments and readers designed to enhance testing efficiency and accuracy.

We are committed to ensuring food safety and quality by delivering reliable and innovative testing solutions to meet your needs.

Goodway Technologies **438**
420 West Ave.
Stamford, CT 06902, USA
Phone: +1 203.359.4708
www.goodway.com

Goodway Technologies has the industry's most reliable surface and conveyor belt sanitizing equipment for robust hygiene in food production plants, as well as powerful dry steam cleaners that can be used to clean tough grime on virtually any surface. Packaging facilities, commercial bakeries, snack producers, produce processing facilities, and breweries are just some of the places where sanitation professionals can find our high-quality machines worldwide.

GPAL - Great Plains Analytical Laboratory **815**
9503 N Congress Ave.
Kansas City, MO 64153, USA
Phone: +1 913.250.8975
www.gpalab.com

GPAL is an ISO 17025 accredited third-party lab that focuses on food quality and safety. We test ingredients and finished products and perform testing for environmental monitoring. We are a full-service lab offering microbiology, grain/cereal chemistry, bake lab testing and analytical chemistry. Our special services department can provide you with customized solutions for shelf-life testing and validation and challenge studies. We pride ourselves on fast accurate turnaround times and superior customer service.

GS1 US® **742**
300 Charles Ewing Blvd.
Ewing, NJ 08628, USA
Phone: +1 303.886.5113
https://www.gs1us.org/

GS1 US® supports over 300,000 members across 25 industries, helping them optimize operations, navigate industry challenges, and adapt to evolving market conditions with GS1 Standards. Visit our booth to see how GS1 Standards can be used for U.S. FDA Food Safety Modernization Act Rule 204 requirements. Experience an interactive showcase following a food item through the supply chain, highlighting key steps to meet requirements.

EXHIBITORS

Hardy Diagnostics **220**
1430 W McCoy Lane
Santa Maria, CA 93455, USA
Phone: +1 805.346.2766
www.hardydiagnostics.com

Hardy Diagnostics has been in business since 1980 and is 100% employee owned. The company is ISO 13485 certified and manufactures over 2,700 products for microbiological testing. With over 9,000 laboratory customers across a broad spectrum of markets, Hardy Diagnostics understands the microbiological needs of the food testing industry and offers an extensive product portfolio for sample collection and preparation, microbial identification, HACCP compliance, and environmental monitoring. Hardy Diagnostics is uniquely qualified to assist the food processor in achieving its quality goals.

Heathrow Scientific LLC **824**
440 N Fairway Dr.
Vernon Hills, IL 60061, USA
Phone: +1 224.244.2120
www.heathrowscientific.com

Heathrow Scientific is a global manufacturer of bench-top equipment and lab essentials used in laboratories across multi-disciplines including Food & Beverage Development, Testing and Processing.

We offer a vast range of sample handling tools and products from gathering, measuring, processing and all the way to storage, including sterile and non-sterile laboratory consumables made from FDA-approved materials.

Hettich **242**
100 Cummings Center, Suite 136L
Beverly, MA 01915, USA
Phone: +1 978.551.7969
https://www.hettweb.com

Hettich is an industry-leading laboratory equipment manufacturer known for its wide array of quiet, reliable, safe centrifugation products and highly efficient, accurate, and space-saving incubators. We manufacture and support quality equipment for sample preparation, climate control, and laboratory automation.

Hillbrush **834**
Norwood Park, Warminster
Mere, Wiltshire BA12 6F3, England
Phone: +77.892.867.40
https://www.hillbrush.com/en-gb/

The Natural by Hillbrush collection embodies over a century of British brush-making expertise, passed down through generations in our UK workshop. Launched in 2023, inspired by nature's forms, we craft high-end, sustainable, plastic-free brushes for kitchen, bathroom, shoe care, and grooming from FSC-certified beechwood and natural fibres. As part of Hillbrush, a Royal Warrant holder to His Majesty King Charles III since 1922, our legacy guarantees exceptional quality and durability. We are deeply committed to environmental responsibility, striving for a cleaner, more sustainable world through our products and sustainably sourced materials.

HiMedia Laboratories, Pvt. Ltd. **626**
507 School House Road
Kennett Square, PA 19348, USA
Phone: +1 484.734.4401
www.himedialabs.com

Founded 40 years ago, HiMedia, a leading manufacturer of bacteriological culture media formulations, now operates in over 130 countries. HiMedia's product line includes comprehensive identification kits for various food spoilage organisms, as well as conventional and animal-free culture media. HiMedia's facilities adhere to WHO-GMP standards and ISO updated protocols, ensuring the reliability of its products. Our technical service team is available to assist customers worldwide, tailoring products to meet specific requirements.

Products are available in North America through HiMedia Laboratories LLC. For inquiries, please contact infous@himedialabs.com or visit www.himediastore.com.

Hygiena® **603 & 825**
941 Avenida Acaso
Camarillo, CA 93012, USA
Phone: +1 805.512.0522
www.hygiena.com

Hygiena® creates innovative diagnostics for a healthier world. As the global leader in rapid diagnostic tests, specializing in food safety, animal health and environmental monitoring, our solutions are reliable, easy to use and accurate, backed by industry-leading customer service and support. Hygiena has been at the forefront of delivering innovative, easy-to-use technologies that help prevent illness, save lives and contribute to a healthier world. Offering a comprehensive product portfolio featuring ATP Monitoring Systems, PCR-Based Pathogen Detection, GMO & Animal Species Identification, Allergen & Mycotoxin Detection and Environmental Collection Devices. A key highlight is the SureTrend, an advanced data analytics & food safety management platform featuring KLEANZ for enhanced sanitation management into a unified data ecosystem. Visit us at Booths #603 and #825.

Hygienically Clean Certification **147**
1800 Diagonal Road, Suite 200
Alexandria, VA 22308, USA
Phone: +1 540.632.1933
www.hygienicallyclean.org

Ensuring that uniforms and textiles are properly cleaned is essential in food production to prevent cross-contamination and foodborne illnesses. Partnering with a Hygienically Clean Food Safety-certified laundry ensures that your linens and garments meet the highest cleanliness and safety standards, offering reassurance to both employees and customers. These certified facilities meet strict standards set by the CDC and FDA, ensuring laundries perform hazard analysis, monitor and correct critical control points, validate HACCP system effectiveness, and keep thorough documentation. This enhances food safety and compliance with regulations. Demand Hygienically Clean Certification.

EXHIBITORS

IEH Laboratories and Consulting Group **127**
15300 Bothell Way NE
Lake Forest Park, WA 98155, USA
Phone: +1 513.300.1491
www.iehinc.com

IEH is the largest network of accredited testing labs in North America. We partner with food companies to implement proactive approaches to manage food safety risks. We provide routine analytical support to the food industry through consultation, testing services, and regulatory support. We specialize in risk management and implement programs proven to ensure strong food safety and quality standards, to prevent the spread of foodborne illness. We are a privately held, family-owned company and have grown rapidly since 2001, both organically and through acquisitions. Our team of highly experienced food safety consultants works directly with clients to design and implement testing programs.

IFC **305**
13420 W 99th St.
Lenexa, KS 66215, USA
Phone: +1 417.818.2657
www.indfumco.com

Offering a comprehensive list of products and services so there is no need to look beyond IFC. Clients trust us to handle all their pest management needs, keeping them in full compliance to focus on other priorities while feeling confident that their brands are protected. Since 1937, IFC has provided a full range of products and services to the food and commodity industries. Our mission is to provide superior service and value to our clients while maintaining our role as the industry leader in pest management and sanitation solutions.

Index Biosystems Inc. **114**
3115 Harvester Road, Suite 401
Burlington, ON L7N 3N8, Canada
Phone: +1 416.388.5245
www.indexbiosystems.com

Index Bio is a Canadian biotechnology company founded in 2019 to help manufacturers shift from reactive food safety to proactive prevention. Its core technology, BioTags®, are applied in trace amounts to food products to safely simulate contamination in real production environments–without disrupting operations.

Compliant with both US FDA and Health Canada regulations, BioTags® integrate with AI-powered modeling to uncover hidden vulnerabilities, reduce recall scopes, and accelerate root cause analysis from months to hours. This in-line, production-ready approach not only strengthens preventive controls but also reveals opportunities to optimize processes and improve efficiency at scale.

Innovation Diagnostics Inc. **142**
229 Robinson
Saint Eustache, QC J7R 5V7, Canada
Phone: +1 514.826.8071
www.innovationdiagnostics.com

Institute for Food Safety and Health (IFSH) **244**
6502 South Archer Road
Bedford Park, IL 60501, USA
Phone: +1 708.563.8278
https://www.iit.edu/ifsh

The Institute for Food Safety and Health (IFSH) is a one-of-a-kind applied food science research consortium comprised of the Illinois Institute of Technology (IIT), the U.S. Food and Drug Administration (FDA), and the food industry. In collaboration with the FDA, we provide stakeholders with the opportunity to develop and exchange knowledge, experience, and expertise in the areas of food safety, food defense, and nutrition.

International Association for Food Protection
2900 100th St., Suite 309
Des Moines, IA 50322, USA
Phone: +1 515.276.3344
www.foodprotection.org

IAFP is an international member-based association focused on protecting the global food supply. Membership benefits include free access to the *IAFP Report, Food Protection Trends (FPT)* Online and *Journal of Food Protection (JFP)* Online. Network with 4,300 + Members around the world through *IAFP Connect*, our Online Community, plus receive special registration rates to attend leading global food safety meetings. Members also receive reduced publication page charges in *JFP*, internationally recognized as the leading publication in food microbiology. Visit our booth for more information.

International Association for Food Protection - Student PDG
2900 100th St., Suite 309
Des Moines, IA 50322, USA
Phone: +1 515.276.3344
www.foodprotection.org

Welcome, students, to IAFP 2025! If you wish to take control of your career and enrich your IAFP experience by interacting with other students and networking with professionals, get involved with the IAFP Student Group. We are an organization of undergraduate and graduate students who wish to enhance food safety through active participation in IAFP. Stop by our booth to meet your colleagues, exchange ideas, and become involved in future student group activities.

Interscience Laboratories Inc. **611**
32 Cummings Park
Woburn, MA 01801, USA
Phone: +1 781.937.0007
www.interscience.com

Stop by Interscience Laboratories' booth at IAFP to learn about our 45+ years of microbiology expertise! We'll show you our 3D Lab – the workflow that can take your lab to greater efficiency, traceability and repeatability. We have solutions from sample prep to bacterial analysis, and our product range includes filter and nonfilter bags, gravimetric dilutors, lab blenders, peristaltic pumps, spiral platers, manual and automatic colony counters, and let's not forget ScanStation, the real-time incubator and colony counter. Visit us to learn more!

EXHIBITORS

Isolocity **749**
200 Green Lane E, #5
East Gwillimbury, ON L9N 0Z7, Canada
Phone: +1 647.500.4253
www.isolocity.com

Isolocity is a top-rated eQMS for the Food industry. Isolocity strives to streamline compliance through automated workflows that provide valuable insights to help our users make informed decisions. Fully compliant with SQF, BRCGS, IFS, HACCP & FSSC 22000, Isolocity's mandate is to deliver more value for every quality department and reduce their overall cost of quality.

Recognized with awards such as "Most Recommended," and " Best Customer Support," Isolocity seamlessly integrates with Microsoft OneDrive, SharePoint, ERP's and essential tools. With a world-class user interface, Isolocity is consistently rated as one of the top QMS solutions globally.

IUL SA **126**
Ciutat Asuncion 4
Barcelona, Barcelona 8030, Spain
Phone: +34.722.658.730
www.iul-instruments.com

Founded in 1987, IUL is a global leader in delivering advanced automation solutions for microbiology laboratories. Our portfolio includes gravimetric dilutors, paddle blenders, air samplers, spiral platers, colony counters, lateral flow readers, and the innovative SphereFlash® AI, an AI-powered colony counting platform. We are committed to providing secure, efficient, and user-centric technologies that strengthen microbiological quality assurance across the food safety industry. Additionally, IUL offers comprehensive OEM collaboration services, enabling flexible strategies and accelerated market entry for our partners. Through innovation and expertise, IUL supports organizations worldwide in achieving superior microbiological performance and operational excellence.

Kerry **547**
3400 Millington Road
Beloit, WI 53511, USA
Phone: +1 608.201.7038
https://www.kerry.com/products/functional-ingredients/food-protection-and-preservation

Kerry Food Protection and Preservation. Experience the future of food protection with innovative, clean label and conventional solutions to extend shelf life and reduce food waste.

KEYENCE Corporation **435**
500 Park Blvd., Suite 500
Itasca, IL 60143, USA
Phone: +1 888.539.3623
www.keyence.com

Kikkoman Biochemifa Company **238**
2-1-1 Nishi Shinbashi Minato-Ku
Tokyo, 105-0003, Japan
Phone: +443.244.5245
https://biochemifa.kikkoman.com

Innovative Solutions for Rapid Environmental Monitoring

Kikkoman Biochemifa Co. is a division of the Kikkoman Corporation, the global food company and world's largest producer of soy sauce.

The ATP Test Kikkoman(A3) is a high sensitivity ATP test that offers a better detection option by detecting food residual contamination that conventional ATP tests can miss. Easy Plate pre-prepared media tests eliminate the need for media preparation saving time and labor making them ideal for use in most food and beverage testing applications. Best of all, Easy Plates are in-stock and ready to ship now!

LABPLAS **403**
1951 Nobel
Sainte-Julie, QC J3E 1Z6, Canada
Phone: +1 450.649.7343
https://labplas.com/en_CA/

Established in 1987, LABPLAS is a Canadian company that specializes in manufacturing sterile sampling products for the intricate demands of food safety testing and compositional analysis. Operating across 60+ nations via our expansive distributor network, our products streamline sample collection, transport, and analysis. With an unwavering dedication to research and development, we continuously refine our processes and innovate new solutions to meet the evolving needs of the agro-food sector. Proudly, we're the sole provider of a comprehensive array of sterile, biodegradable sampling products, advancing global food safety standards with unwavering commitment.

LabWare, Inc. **110**
3 Mill Road, Suite 102
Wilmington, DE 19806, USA
Phone: +1 302.660.6579
https://www.labware.com/industries/food-beverage

Discover how LabWare ASSURE LIMS (laboratory information management system) empowers food safety labs with unmatched efficiency, compliance, and data integrity. Our industry-leading solution streamlines sample management, automate workflows, and ensure regulatory compliance. From ingredients to products, LabWare ASSURE delivers real-time insights and seamless traceability to safeguard food integrity. Meet with our experts to explore how LabWare can optimize your lab operations. Visit our booth to see it in action. Transform your lab today!

LGC AXIO Proficiency Testing **649**
1159 Business Park Dr.
Traverse City, MI 49686, USA
Phone: +1 231.633.1663
www.lgcstandards.com/pt

LGC AXIO Proficiency Testing understands that laboratories need confidence in their measurements and the methods they use to produce them. For the past 40 years we've been leading the direction of proficiency testing, bringing our technical expertise and influence to drive the future of quality assurance and accreditation.

LGC AXIO Proficiency Testing carries out over 2,700 tests each year and operates PT schemes across the food, beverage, environmental, clinical, pharmaceutical, consumer safety, forensic and petroleum sectors. With the majority of our schemes accredited to ISO/IEC 17043, you can have confidence in your continuous improvement with AXIO, the globally trusted, expert partner in proficiency testing.

EXHIBITORS

MadgeTech **105**
6 Warner Road
Warner, NH 03278, USA
Phone: +1 603.746.8222
www.madgetech.com

MadgeTech designs and manufactures high-quality data loggers for temperature, humidity, and pressure monitoring in food processing and storage. From smokehouses to cold storage and canning, our solutions support HACCP compliance, USDA regulations, and heat penetration testing. Made in the USA, MadgeTech loggers deliver accurate, reliable data to ensure food safety at every stage.

Matrix Sciences **535**
123 N Wacker Dr., Suite 1500
Chicago, IL 60606, USA
Phone: +1 847.272.8700
www.matrixsciences.com

Matrix Sciences delivers accurate, timely and insightful information so that customers have what they need to bring safe, quality food to market with an established network of laboratory testing, sensory, advisory and data analytics services.

Matrix partners with customers offering a market-leading combination of services and technology to provide the support, expertise and resources food manufacturers need to make informed decisions with confidence from Cultivation to Consumer™.

MDPI AG **745**
Grosspeteranlage 5
Basel, 4052, Switzerland
Phone: +41.61.683.77.34
https://www.mdpi.com/

A pioneer in scholarly, open access publishing, MDPI has supported academic communities since 1996. Based in Basel, Switzerland, MDPI has the mission to foster open scientific exchange in all forms, across all disciplines.

Our 469 diverse and open access journals, including 460 peer-reviewed journals and 9 conference journals, are supported by more than 295,000 academic experts who share our mission, values, and commitment to providing high-quality service for our authors. We serve scholars from around the world to ensure the latest research is freely available and all content is distributed under a Creative Commons Attribution License (CC BY).

MediaBox **327**
5350 Partners Court
Frederick, MD 21703, USA
Phone: +1 301.662.6835
www.800ezmicro.com

MediaBox™ Sterile Liquid Solutions eliminate the time-consuming process of autoclaving and bottle washing. A host of automated dispensing options are also available. We offer a complete range of standard and chromogenic agar plates, enrichment broths, and buffers for all testing needs. Custom formulations are available upon request.

Mérieux NutriSciences **203**
401 N Michigan Ave., Suite 1400
Chicago, IL 60611, USA
Phone: +1 773.366.0775
www.na.mxns.com

Mérieux NutriSciences leverages over 50 years of scientific and entrepreneurial expertise to answer food industry needs. Today's global challenges transform the way food is produced, marketed, and consumed, which is why we know our clients need more than reliable analytical results; they need practical and innovative solutions that will contribute to making food systems safer, healthier, and more sustainable. From our initial expertise in microbiology and consulting, we have broadened our scientific specialties into the fields of chemistry, education, certification, research, labeling, sensory, and digital to offer a complete suite of services to meet our customer needs.

Meritech **148**
720 Corporate Circle, Suite K
Golden, CO 80401, USA
Phone: +1 239.989.5127
www.meritech.com

Meritech CleanTech® Automated Handwashing Stations remove more than 99.9% of harmful pathogens in just 12 seconds. There are both wetted boot dip and dry footwear sanitizing pans that can be added to CleanTech® for simultaneous pathogen removal from both hands and footwear. We also offer a full line of compact and high-throughput automated boot scrubbers for laced street shoes or up to 9" on the sides of boots. See how automated hygiene equipment increases employee compliance, integrates seamlessly into facilities, and exceeds regulatory food safety requirements today!

Michelson Laboratories, Inc. **727**
6280 Chalet Drive
Commerce, CA 90040, USA
Phone: +1 562.572.5390
www.michelsonlab.com

Since 1970, Michelson Laboratories has specialized in offering comprehensive chemical and microbiological analyses to the food industry. We offer rapid turnaround times, accurate results, and exceptional customer service. We specialize in various methodologies for indicator organism and pathogen analysis, including PCR, as well as shelf-life and challenge studies. Our chemistry lab conducts tests such as antibiotic residues, melamine by LC/MS, nutritional labeling, pesticide analysis, heavy metals testing by ICP/MS, aflatoxins, allergens, and more, including PFAS testing. Moreover, we excel in sampling and analyzing products on FDA import alert. Our Southern and Northern California locations are accredited to ISO/IEC 17025 standards.

Michigan State University - Global Food Law **112**
648 N Shaw Lane
East Lansing, MI 48824, USA
Phone: +1 517.432.6970
https://www.law.msu.edu/programs/global-food-law/index.html

Maintain your work-life balance while updating your current skill set and knowledge base through our Global Food Law Program. Enroll in individual courses or pursue a Master's degree. All courses are taught asynchronously and completely online. There is no need to relocate or put your career on hold to further your education. No legal background is required.

EXHIBITORS

Michigan State University Online Food Safety Program **714**
1129 Farm Lane, B51
East Lansing, MI 48824, USA
Phone: +1 517.884.2078
www.foodsafety.msu.edu

Michigan State University's Online Food Safety program educates professionals on making global food systems safe. With a science-driven core curriculum, the program offers a Master of Science in Food Safety degree and a Graduate Food Safety Certificate. The flexible online courses allow students to balance their studies with personal and professional life, no matter where they are in the world. Courses are immediately applicable to students' current positions, providing them with the knowledge and tools to navigate the ever-changing concerns surrounding food protection and public health.

Micro Essential Laboratory **838**
4224 Avenue H
Brooklyn, NY 11210, USA
Phone: +1 718.928.2913
www.microessentiallab.com

Micro Essential has been a market leader in pH, sanitizer, and disinfectant testing technologies, serving the food service and hospitality industries since 1934. Our focus on customer satisfaction and product quality ensures your regulatory compliance and protect both your customers and your brand.

Microbiologics **615**
200 Cooper Ave.
Saint Cloud, MN 56303, USA
Phone: +1 763.746.6959
https://www.microbiologics.com

Microbiologics is your trusted source for microbial quality controls, offering a wide range of reference strains in convenient, test-ready formats. For food laboratories, our standout products include Epower™ and UV-BioTAG™. Epower™ is available in concentrations from 10^2 to 10^8 CFU per pellet, streamlining quantitative QC for both rapid and traditional microbiology methods. UV-BioTAG™ strains feature a green fluorescent protein marker, making them easy to distinguish from natural microflora and contaminants.

Visit us at IAFP booth #615 to learn how Microbiologics can help you strengthen your quality control program.

Microbiology International **326**
5350 Partners Court
Frederick, MD 21703, USA
Phone: +1 800.396.4276
www.800ezmicro.com

Microbiology International offers a wide range of instrumentation designed to optimize food testing laboratories. Equipment such as media sterilizers, automated plate pourers, autoclaves, spiral platers, and colony counters will streamline workflows, offering significant time and cost savings.

Midwest Laboratories **143**
13611 B St.
Omaha, NE 68130, USA
Phone: +1 402.517.8755
www.midwestlabs.com

Midwest Laboratories is a trusted analytical testing partner serving the food industry with ISO 17025 and NELAP-accredited services. We provide microbiological, chemical, and nutritional testing solutions to help food manufacturers, processors, and distributors ensure product safety, meet regulatory requirements, and protect their brands. From routine testing to shelf life, allergen, and environmental monitoring, our team works with clients to deliver accurate results, fast turnaround times, and responsive support. Visit us to learn how we help safeguard the food supply chain with science-backed data and industry expertise. Explore more at midwestlabs.com.

MilliporeSigma **401**
400 Summit Dr.
Burlington, MA 01821, USA
Phone: +1 781.491.5803
www.milliporesigma.com

MilliporeSigma, the U.S. life science business of Merck KGaA, Darmstadt, Germany, partners with food safety teams to enhance lab testing efficiencies through reliable products and services. Our extensive portfolio includes over 300,000 products, supported by 19,000 employees across 72 global manufacturing sites. We specialize in microbiology and analytical food safety testing, offering trusted brands like Millipore® for hygiene and pathogen detection, Supelco® for food contamination analysis, and Milli-Q® for laboratory water solutions. Committed to quality and regulatory compliance, we provide comprehensive support at every stage of the microbiology testing workflow.

MVTL Laboratories, Inc. **436**
1126 N Front St.
New Ulm, MN 56073, USA
Phone: +1 507.276.4651
www.mvtl.com

MVTL Laboratories, Inc. is an independent testing laboratory established in 1951. MVTL is ISO/IEC 17025-2005 accredited through A2LA under scopes 2459.1 and 2459.02 and can provide you with fast, reliable results and unsurpassed individualized customer service. MVTL offers a wide variety of chemical and microbiological analyses in addition to consulting and environmental swabbing services to help ensure the quality and safety of your products. We are staffed and equipped to support the following programs: HACCP, Nutritional Labeling, Quality Control, Sanitation, Shelf-Life, and Challenge Study Testing.

National Environmental Health Association (NEHA) **429**
720 S Colorado Blvd., Ste. 105A
Denver, CO 80246, USA
Phone: +1 303.802.2188
www.neha.org

The National Environmental Health Association (NEHA) is a leading professional organization dedicated to advancing the environmental health and food safety professions. With over 6,000 members across public and private sectors, NEHA promotes excellence by providing training, credentials, and policy leadership to professionals protecting public health. Through nationally recognized certifications such as the CP-FS and REHS/RS, and a broad range of educational programs, NEHA supports science-based practices, regulatory collaboration, and workforce development. NEHA partners with FDA, CDC, and other global stakeholders to strengthen food safety systems and ensure the safe delivery of food to communities across the nation and beyond.

EXHIBITORS

Nelson-Jameson, Inc. **510**
3200 S Central Ave., P.O. Box 647
Marshfield, WI 54449, USA
Phone: +1 800.826.8302
www.nelsonjameson.com

Nelson-Jameson is a fourth-generation, family-owned distributor to the food manufacturing industry. From its roots in dairy production supplies, it also offers a broad range of food processing products and services that help organizations operate with the highest quality, food safety, and compliance standards. Since 1947, it has led with kindness and mutual respect and its custom training and rigorous audits foster a culture of safety throughout the food and dairy supply chain. Nelson-Jameson also operates NEXT Logistics, which provides delivery services from its Wisconsin, California, Idaho, Pennsylvania, and Texas strategically placed distribution centers. For more information, please visit: https://nelsonjameson.com.

Neogen® **511**
620 Lesher Place
Lansing, MI 48912, USA
Phone: +1 517.334.0821
www.neogen.com

Neogen® is dedicated to advancing modern food safety practices through data-enabled solutions for proactive risk management and holistic environmental monitoring. We empower our customers with expert guidance and data-driven insights to help navigate the evolving food safety landscape. Together, we can help build a brighter future for global food safety.

Nestlé Quality Assurance Center (NQAC) Dublin **604**
6625 Eiterman Road
Dublin, OH 43016, USA
Phone: +1 614.526.5200
www.nqacdublin.com

The Nestlé Quality Assurance Center (NQAC) Dublin provides the analytical testing businesses need to get products safely onto consumers' tables. We have supported food manufacturers, processors, ingredient suppliers, retailers, and restaurants worldwide for over three decades. These companies rely on our laboratory to provide the highest quality food safety testing and services, from routine to highly-specialized, to meet their specific product needs. Now offering an expansive portfolio of over 200 methods to support your business.

Neutec Group Inc **534**
1 Lenox Ave.
Farmingdale, NY 11735, USA
Phone: +1 516.870.0877
https://www.neutecgroup.com

Neutec Group is a market leader in automation for the complete microbiology workflow including lab grade analyzers. We have been serving the food processing and development industries in QA, QC, and R&D for 20 years and will be showcasing our Water Activity Meters, Media Preparators, Agar Fillers, Spiral Platers, Automated Colony Counters as well as Dilutors and Mixers.

NSF **545**
789 Dixboro Road
Ann Arbor, MI 48105, USA
Phone: +1 734.769.5176
www.nsf.org

NSF stands at the forefront of global efforts to improve human and planet health. As an independent, internationally recognized organization, we play a pivotal role in developing robust public health standards.

Comprising a dedicated standards team and a team of service professionals, NSF engages in the rigorous testing, auditing, and certification of an array of products and services, as well as consulting and training.

Our professional staff of auditors, engineers, microbiologists, toxicologists, chemists, and public health experts provides services in 180 countries. Our ISO/IEC 17025-accredited, state-of-the-art global laboratories offer testing and technical services as well as human health risk assessments.

OurRecords, Inc. **747**
2312 Flanders Lane
Plano, TX 75025, USA
Phone: +1 214.621.3713
www.ourrecords.com

Partnership for Food Safety Education **146**
14 North Park Place
Newark, OH 43055, USA
Phone: +1 614.245.5285
www.fightbac.org

The Partnership for Food Safety Education empowers health and food safety educators with the tools, resources, and support needed to drive lasting change in consumer food safety practices.

PathogenDx **722**
1230 E Pennsylvania St., Suite 102
Tucson, AZ 85714, USA
Phone: +1 405.650.7967
www.pathogendx.com

PathogenDx is a biotechnology company specializing in the development of rapid and comprehensive diagnostic solutions for food and environmental safety. This year we will showcase our comprehensive solution for *Salmonella* species quantification and rapid detection of *Salmonella* serovars including MeganVac1 for finished poultry products and environmental process controls. In addition, we will highlight improvements in our rapid, unenriched EnviroX assay for detection of *Listeria* spp., *Listeria monocytogenes*, and *Salmonella* spp.

Pathotrak **638**
14300 Cherry Lane Ct., #109
Laurel, MD 20707, USA
Phone: +1 781.367.1272
www.pathotrak.com

Pathotrak slashes pathogen test turn-around to a single shift. Our AOAC-accredited Next-Generation Enrichment (NGE) concentrates bacteria directly from samples up to 1,500 g in minutes, enabling PCR, culture, or quant assays without overnight incubation. Labs cut cost per sample up release product sooner, while processors gain real-time confidence in food-safety decisions. Drop by to see the compact NGE instrument and explore our high-throughput accessories that keep pace with 100+ samples/day. Faster results, better quality, bigger margins.

EXHIBITORS

Pelsis **136**
135 Region S Dr.
Jackson, GA 30233, USA
Phone: +1 470.714.6400
www.pelsis-iit.com

PerkinElmer **841**
40 Abelia Lane
Newark, DE 17911, USA
Phone: +1 302.867.9159
https://content.perkinelmer.com/

Phageguard **828**
Nieuwe Kanaal 7P
Wageningen, Gelderland 6709 PA, Netherlands
Phone: +1 478.550.8716
www.phageguard.com

Phageguard partners up with companies across all food industries, offering natural, FDA-approved, and organic bacteriophage solutions to combat *Listeria, Salmonella,* and *E. coli* O157. Since 2005, we have developed sustainable solutions to control bacterial risks, outbreaks, and recalls. Our phages provide targeted protection with no compromise on quality, taste, or worker safety and are easy to integrate into existing processes. Visit our booth to learn how Phageguard can enhance food safety naturally—with precision and efficiency. Learn more at www.phageguard.com.

PNG BIOMED Co., Ltd. **134**
Unit 218, 120 Heungdeokjungang-ro
Yongin-si, Giheung-gu,Gyeonggi-do 16950, Republic of Korea
Phone: +82.10.4072.1182
https://www.pngbiomed.com/main#

PNG BIOMED Co., Ltd. was established as a specialized manufacturer of food safety-related products, and is commercializing film media and testing equipment for microbial test based on its over 10 years of accumulated research and development experience in food safety.

The Petricore™ AC, a rehydratable film medium that is a ready-to-use, pre-made alternative to standard plate count agar, designed to enumerate total aerobic bacteria from foods and environmental samples has been developed and is available now. The Petricore™ AC has been validated by obtaining PTM certification from AOAC RI and is manufactured in an ISO 9001:2015 certified manufacturing facility.

PROGNOSIS BIOTECH **827**
Farsalon 153
Larissa, 413 35, Greece
Phone: +30.690.887.5205
https://www.prognosis-biotech.com/

PROGNOSIS BIOTECH, headquartered in Greece, is a global diagnostics provider with 10 subsidiaries and distributors in over 80 countries. The company offers a wide range of ELISA kits and rapid tests for mycotoxins, food allergens, antibiotic residues, GMOs, milk adulteration, and histamine. It also provides hygiene monitoring solutions, including ATP detection, and clinical diagnostics. PROGNOSIS BIOTECH also designs and produces proprietary antibodies, hardware, and software–including an Android mobile app for instant report sharing. Committed to sustainable practices, it emphasizes green extraction methods and digital traceability, empowering safer food chains and protecting consumer health worldwide.

Provision Analytics **446**
1215 13 St. SE, #201
Calgary, AB T2G 3J4, Canada
Phone: +1 805.444.9492
www.provision.io

Provision's cloud software simplifies food safety and traceability compliance for businesses across the food supply chain, helping them meet customer, regulator, and certification requirements. Designed for operators with management insights in mind, Provision replaces cumbersome paperwork and complex technology with an intuitive interface, automated notifications, and smart rules. Provision is helping hundreds of clients across three continents save time, improve process control, and empower food safety teams. Easily customizable for operations of any scope, scale, or process, Provision's ease of use and customizable data tools put powerful insights within reach for any business from grower to grocer.

PURE Bioscience, Inc. **303**
771 Jamacha Road, #512
El Cajon, CA 92019, USA
Phone: +1 619.536.7475
https://purebio.com/

At PURE Bioscience, we're redefining food safety with innovative antimicrobial solutions powered by patented Silver Dihydrogen Citrate (SDC) technology. Our EPA-registered PURE Hard Surface disinfectant offers rapid kill times, exceptional material compatibility, and user safety. From food contact to facility sanitation, our products help reduce contamination, support compliance, and protect your people, product, and brand. Visit Booth 303 to see how PURE is Helping Humans Stay Healthy!

PureLine **505**
1241 N Ellis St.
Bensenville, IL 60106, USA
Phone: +1 847.732.7253
www.pureline.com

Reset the environment! For over 30 years PureLine has been providing chlorine dioxide sanitation solutions that are customized to our food customer's needs. PureLine offers a full line of chlorine dioxide products and services at a cost-effective price. All PureLine chlorine dioxide treatments are backed by a 6-log kill guarantee. Stop by the PureLine booth for free samples or to setup free onsite training.

Q Laboratories **213**
1930 Radcliff Dr.
Cincinnati, OH 45204, USA
Phone: +1 517.614.6240
www.qlaboratories.com

For over 50 years, Q Laboratories has operated a third-party contract laboratory that integrates state-of-the-art technology with personalized service and attention. We offer a wide range of services to fulfill all your testing and quality assurance requirements, as well as customized solutions tailored to your specific needs. Registered with the FDA (Reg. #1527260), compliant with cGMP/GLP regulations, and ISO 17025 accredited, Q Laboratories is dedicated to upholding the quality standards required for food testing.

EXHIBITORS

QualiTru Sampling Systems **337**
471 Hayward Ave. N
Oakdale, MN 55128, USA
Phone: +1 612.801.6876
www.qualitru.com

Since 1983, QualiTru Sampling Systems® has delivered trusted aseptic and representative sampling solutions that help liquid food and beverage producers ensure quality, safety, and compliance. Our easy-to-use systems enable food safety professionals to conduct real-time process monitoring for contamination control and quality assurance. We offer a complete line of ports, pre-sterilized septa, and collection units for inline, silo, drum, and bioreactor applications. Trusted in over 30 countries across dairy, liquid food, beverage, nutraceutical, and biotechnology sectors, QualiTru also provides educational resources, application guidance, and training to help teams implement proactive process monitoring strategies that reduce contamination risk and improve efficiency.

Quality Assurance & Food Safety Magazine **817**
5811 Canal Road
Valley View, OH 44125, USA
Phone: +1 216.393.0269
www.qualityassurancemag.com

QA Magazine, a bi-monthly publication from GIE Media, provides digital and print publications for the food and beverage processing industry with a specific focus on food safety, quality, and defense across the global supply chain. Through practical insights and analysis of plant processes, practices, regulation, and current issues, the QA Media family—including our print publication, website and e-newsletters—addresses the growing market need for targeted information in these key areas. www.qualityassurancemag.com.

R & F Products, Inc. **720**
2725 Curtiss St.
Downers Grove, IL 60515, USA
Phone: +1 630.969.5300
www.rf-products.net

R & F Products, Inc. specializes in developing and manufacturing chromogenic media for detecting and isolating food, environmental, and clinical pathogens. The company's goal is to create innovative and distinct chromogenic plating media and enrichment broths that enhance laboratory efficiency, accuracy, sensitivity, and specificity in isolating pathogens. R & F Products supplies chromogenic media for the isolation of various pathogens, including *Escherichia coli* O157:H7, *Listeria monocytogenes, Salmonella* species, *Bacillus cereus/Bacillus thuringiensis, Cronobacter sakazakii, Shigella* species, *Campylobacter jejuni/C. coli, Yersinia pestis,* and non-O157 Shiga-toxin *E. coli* (STEC), and *Arcobacter butzleri/cryaerophilus/skirrowii.*

R-Biopharm Inc. **721**
870 Vossbrink Dr.
Washington, MO 63090, USA
Phone: +1 819.575.6452
https://food.r-biopharm.com

R-Biopharm specializes in providing innovative and reliable food and feed analysis solutions worldwide. Our cutting-edge technology enables accurate detection of contaminants, allergens and more, ensuring food safety and quality. We offer a comprehensive range of products, including rapid test kits, ELISAs, and PCR assays, supported by a dedicated team of experts. Come visit our booth to learn more about our advanced solutions and how they can benefit your business.

Realzyme LLC **121**
219 S Pioneer Blvd., Suite E
Springboro, OH 45066, USA
Phone: +1 937.760.6066
www.realzyme.com

Realzyme's main mission is to guarantee the well-being of people. Wherever hygiene is important, we are there to protect and improve their everyday health conditions. We at Realzyme are able to keep these promises because our technology is centered on enzymes. The enzymatic solutions developed by Realzyme far exceed the hygiene levels currently obtained by traditional chemical means. They optimize cleaning efficiency, for controlled, targeted, and – above all – more efficient disinfection. In addition, Realzyme's latest exclusive innovations guarantee that all players in the food chain and in the healthcare sector can benefit from the detection and radical treatment of sources of contamination and infection, including contaminations related to biofilm. Realzyme is also a dynamic contributor to sustainable development, promoting the well being of future generations.

Reshape Biotech **843**
Østbanegade 55, 1. Floor
Kbh Ø, Copenhagen 2100, Denmark
Phone: 45.602.284.85
https://www.reshapebiotech.com/

Retreeva Global **849**
Foxtail House, Foxtail Road
Ipswich, Suffolk IP3 9RX, United Kingdom
Phone: +44.7824.089.436
www.klipspringer.com

Romer Labs **627**
130 Sandy Dr.
Newark, DE 19713, USA
Phone: +1 856.981.3493
www.romerlabs.com

At Romer Labs, innovation is at the heart of what we do. Visit our booth for demos showcasing allergen and mycotoxin testing capabilities on the AgraVision™ Pro reader. Eliminate subjectivity in strip result readings and simplify your workflow with automatic timing and an integrated incubator. Seamlessly collect, document, and manage data with Romer Labs Data Manager. Romer Labs ROCKS! Join us everyday at booth #627 to win our music themed giveaways.

RQA, Inc. **602**
18504 West Creek Dr., Suite 200
Tinley Park, IL 60477, USA
Phone: +1 630.670.1388
www.rqa-inc.com

RQA, Inc. provides world-class food safety, quality assurance, and risk reduction services to the food industry globally. Consultancy and training services include supplier risk assessment, development or review of crisis management plans and customized simulation exercises. Our FSPCA certified Lead Instructors offer public and private FSMA compliance courses for PCQI for Human or Animal Food, Foreign Supplier Verification and Intentional Adulteration Vulnerability Assessments. RQA can provide on demand QA resources, assess product quality at retail, retrieve consumer complaint samples, identify foreign material, investigate food fraud or diverted products, inspect or remediate product in distribution, or even execute a recall.

EXHIBITORS

Safe Food Alliance **844**
710 Striker Ave.,
Sacramento, CA 95834, USA
Phone: +1 916.545.4497
www.safefoodalliance.com

SafetyChain **846**
7599 Redwood Blvd., #205
Novato, CA 94945, USA
Phone: +1 503.707.1419
www.safetychain.com

Saldesia "Goddess of Food Safety" **449**
22413 West North Ave.
Antioch, IL 60002, USA
Phone: +1 616.422.7233
www.saldesia.com

Saldesia "Goddess of Food Safety" is a focused distributor of products and solutions specifically tailored to meeting the demands of Food and Beverage processing facilities. Our team is devoted to serving the Quality, Production, Safety and Sanitation departments. With more than 10 years of distribution and industry experience, we are determined to source and supply the best offerings to meet and exceed the Food & Beverage industry's requirements. This determination supports our customers' efforts to produce the safest and highest quality products.

Scan American Corporation **434**
9505 N Congress Ave.
Kansas City, MO 64153, USA
Phone: +1 816.935.1251
www.scanamcorp.com

SGS **243**
201 Route 17 North
Rutherford, NJ 07070, USA
Phone: +1 973.866.9043
www.sgs.com

SGS is the world's leading testing, inspection and certification company. We provide a comprehensive range of assurance, analytical and advisory services to help food businesses deliver high quality, safe and compliant products to markets around the world. Our highly qualified analysts, auditors and industry experts, utilizing state-of-the-art laboratories and software applications, will ensure your products meet client expectations and the requirements set by accreditation bodies and governments. We offer a wide range of testing solutions to internationally recognized standards. From essential microbiological analysis to food authenticity, nutrition or allergen testing, our experts will process your samples quickly, professionally and accurately.

Shenzhen Bioeasy Biotechnology Co., Ltd. **822**
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Shenzhen, Guangdong 518126, China
Phone: +86.157.666.420.80
www.bioeasy.com

Shenzhen Bioeasy Biotechnology Co., Ltd., China's first and only listed food safety testing company, is a global leader in rapid test technology. Operating globally, with a U.S. branch Bioeasy USA Inc. We provide reliable, easy-to-use kits for detecting drug residues, mycotoxins, and pesticides in dairy, produce, grains, and animal products. Our solutions include microbial testing (ATP, CountEasy), animal health diagnostics (AniEasy), and sample preparation tools. Over 17 years of innovation and 98% self-produced key raw materials ensure our quality and consistency. Visit our booth for comprehensive, one-stop food safety solutions.

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Our simple but powerful shoe cover dispensers allow employees to put on shoe covers SAFER, FASTER, and CLEANER. No longer will you find employees cutting corners and putting themselves at risk of falling by balancing precariously on one foot or leaning against a wall. The added safety handle keeps them on two feet and the hands-free aspect stops the risk of spreading harmful bacteria that can lurk on shoes.

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SK8 Biotech helps food processors enhance their food safety programs with the precision of natural bacteriophage technology and advanced electrostatic sprayers from Electrostatic Spraying Systems. This combination allows us to effectively target pathogens and safeguard food products.

SmartSense by Digi® **415**
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Dorval, QC H9P 1G5, Canada
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www.smartfoodsafe.com

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Spectacular Labs **836**
2600 Hilltop Dr., #C238
Richmond, CA 94806, USA
Phone: +1 408.476.1272
www.spectacularlabs.com

Spectacular Labs is transforming food safety testing with its on-site "lab-in-a-box" solution. Our OneTouch device delivers third-party validated results for *E. coli, Listeria, Salmonella,* and *Campylobacter*–all within a single shift. The fully automated system handles the entire process, from enrichment to Certificate of Analysis (COA), with minimal user input. Patented, single-use, sealed cartridges eliminate contamination risk and ensure reliable results every time.

Spectrum Chemical Mfg., Corp. **335**
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Phone: +1 310.359.9521
www.spectrumchemical.com

Spectrum offers a full line of enhanced-quality food grade chemicals, including Kosher and Halal certified ingredients and FCC graded products & chemicals. Spectrum has what you need, whether you are a food & beverage manufacturer or a testing lab requiring general laboratory chemicals, supplies or equipment. Spectrum offers more than 300 FCC grade chemical ingredients and over 1200 USP-NF, BP, EP, JP multicompendial products. We supply a Certificate of Analysis (CofA) with every lot of chemicals which are tested, packaged and stored under cGMP per 21CFR part 211 in FDA registered and inspected facilities.

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State Food Safety **848**
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https://www.statefoodsafety.com/

SteraMist Disinfection **744**
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SteraMist cold plasma ionized Hydrogen Peroxide (iHP) technology achieves quick disinfection without residue or wiping. SteraMist ensures rapid and efficient sanitization, protecting product quality and maximizing production time. SteraMist EPA-registered broad-spectrum disinfection minimizes the risk of cross-contamination by combating a variety of microorganisms, mold, & mycotoxins. SteraMist is gentle and can be used on electronics and machines, eliminating the need to remove items before disinfection. With a growing population to feed and strict standards to meet, SteraMist quickly disinfects with no residue and unmatched scalability to help you focus on delivering quality and protected food. Learn more at SteraMist.com.

Sterilex **642**
111 Lake Front Dr.
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Phone: +1 785.499.3227
www.sterilex.com

Sterilex is a trusted leader in biofilm control and antimicrobial solutions. We develop state-of-the-art sanitation chemicals to deliver unmatched efficacy, quality and reliability ensuring superior microbial control, regulatory compliance and operational efficiency globally.

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Synexis **805**
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Phone: +1 913.904.8359
www.synexis.com

Our innovative Synexis Dry Hydrogen Peroxide (DHP®) is the solution to creating healthy indoor environments by reducing viruses, bacteria, mold, and VOCs both in the air and surfaces 24/7/365 within occupied spaces. Our patented technology works by transforming naturally occurring oxygen and humidity in the air into Dry Hydrogen Peroxide (DHP®). Synexis provides a continuous microbial reduction to make the indoor spaces we work, heal, and live safer for all.

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www.taag-labs.com

TAAG is a multinational biotechnology company with a 25-year track record of advancing public health through customized, AI-driven applications of molecular biology. In partnership with global leaders in the food industry, TAAG has made revolutionary advances toward a more integrated, data-driven, and precise approach to food safety. These contributions include next-generation laboratory services using molecular diagnostics, predictive environmental monitoring programs tailored to each operation, bespoke software for automated analysis and traceability, as well as custom-developed high-multiplex PCR assays for microorganism detection and identification, all powered by our state-of-the-art artificial intelligence. Learn more at www.taag-tech.com

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EXHIBITORS

TEC Services **739**
8601 Robert Fulton Dr., Suite 110
Columbia, MD 21046, USA
Phone: +1 262.906.1535
www.tecserv.com

TEC Services delivers custom sanitation solutions, ensuring food safety, compliance, and efficiency.

Tentamus **135**
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www.tentamus.com

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Thermo Fisher Scientific **345**
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Phone: +1 913.895.4240
www.thermofisher.com

Thermo Fisher Scientific supplies innovative solutions for the food, water and beverage microbiology testing industry. From sample prep and enrichment through to user-friendly result interpretation and confirmation, we provide a wide range of reliable and compliant products and services including:

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Trustwell **647**
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https://www.trustwell.com/

Trustwell delivers AI-driven solutions for a smarter, safer food supply chain. Powered by FoodLogiQ and Genesis, our Trustwell Connect platform helps food businesses strengthen traceability, improve labeling accuracy, and maintain compliance. From recipe to recall, we equip teams with the tools to reduce risk and uphold food safety standards. Please contact sales@trustwell.com or visit our website at www.trustwell.com/connect for more information.

Utah State University Master of Food Safety and Quality **437**
8700 Old Main Hill
Logan, UT 84322-8700, USA
Phone: +1 435.232.9978
https://caas.usu.edu/mfsq/

The future of food safety leadership begins with you. As the farm-to-fork food chain faces growing challenges, demand for qualified professionals has never been greater. The Utah State University (USU) Online Professional Master's degree in Food Safety and Quality (MFSQ) prepares you to take on leadership roles in this critical field, putting you on the fast track to success. USU's MFSQ has been a leader in online education since 2019, setting a high standard for accessible, quality training in food safety. Our program provides high-quality education at a competitive price, making it easier for professionals to invest in their education.

Veeva Systems, Inc. **234**
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https://www.industries.veeva.com/

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The Vincit Group **442**
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Phone: +1 423.648.0646
www.vincitgroup.com

As a network of 8 vertically integrated industrial companies, we create an exchange of ideas and services geared toward raising the bar and changing for the better the ways we make what we make.

EXHIBITORS

Vitsab® International AB **501**
16 Randall Road
Winslow, ME 04901, USA
Phone: +1 207.210.1753
www.vitsab.com

Vitsab® International AB/Freshtag® was awarded IAFP's 2023 Food Safety Innovation Award for their Freshtag® products resulting in published articles in Bloomberg, Business Insider, and Yahoo News. Perishable products need validation of proper temperature handling from source to plate. With the rapid increase of direct shipments of perishable products with eCommerce retail leading the way, there is an increased concern for "The Last Mile" of shipments. Freshtag® is that verification – Temperature Monitoring Made Simple®. Visit Freshtag.com to learn about their exclusive "Stop Light" color changing technology or stop by booth #501 at the IAFP 2025 Annual Meeting in Cleveland, Ohio.

Weber Scientific **729**
2732 Kuser Road
Hamilton, NJ 08691, USA
Phone: +1 609.249.1409
www.weberscientific.com

Founded in 1959 and based in New Jersey, Weber Scientific provides quality assurance solutions for bacteriological testing, sampling, sanitation monitoring, and analytical equipment for the food, beverage, and water industries. Our product line includes pre-filled dilution bottles, MegaSampler Sponges™, ATP monitoring tools, Peel Plates, sampling bags, and so more–all backed by a 100% satisfaction guarantee. Visit our booth and meet our expert team, get a free full-color catalog, and explore our innovative offerings. For our full product portfolio, visit weberscientific.com. We're here to support all your lab needs and look forward to connecting with you!

Whirl-Pak®, Filtration Group **820**
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Pleasant Prairie, WI 53158, USA
Phone: +1 512.516.1085
www.whirl-pak.com

Established in 1959, Whirl-Pak®, Filtration Group provides a safer, healthier, more productive world with sterilized, disposable closure bags used in over 75 countries in industry applications including food & beverage.

At Whirl-Pak, we continue to strive for excellence with secure sampling bags that ensure the safety of consumers while improving efficiencies in processing facilities and laboratories. As quality management policies and regulation requirements change, the health and safety of the consumer depends on the accuracy of your test results. Whirl-Pak can help you deliver the best possible outcome – for results you can trust.

World Bioproducts **227**
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Phone: +1 425.242.4153
www.worldbioproducts.net

World Bioproducts provides innovative environmental sample collection devices designed to address the specific challenges of recovering microorganisms from food processing operations. The EZ Reach™ Sponge Sampler and PUR-Blue™ Swab Sampler are available with a variety of collection broths and buffers, including HiCap™ Neutralizing Broth, proven to effectively neutralize residual sanitizers, recover injured organisms, and maintain their viability for up to 96 hours after collection. Visit our booth to learn how we can help improve your EMP.

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Xcluder Rodent & Pest Defense **413**
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Buffalo Grove, IL 60089, USA
Phone: +1 847.975.8221
www.buyxcluder.com

Xcluder is the world leader in rodent exclusion with an array of specialized rodent-proofing solutions. Xcluder Fill Fabric is the only rodent-proofing product on the market tested and proven effective by the USDA/APHIS lab.

Xcluder's Pest Control Door Sweeps feature heavy-duty rubber lined with Xcluder Fill Fabric and come in various designs to protect personnel doors, garage doors and roll-up doors.

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Xcluder products are critical to a comprehensive pest management program.

Xi'an Tianlong Science and Technology Co., Ltd. **343**
No. 4266, Shanglin Road, Economic & Technological Development Zone
Xi'an, Shaanxi 710000, China
Phone: +86.1809.286.3484
www.medtl.net

Xi'an Tianlong Science and Technology Co., Ltd. is a Chinese biotechnology company committed to advancing food safety through proactive molecular solutions. Our portfolio includes nucleic acid extraction instruments, PCR systems, and reagent kits, enabling the detection of foodborne pathogens, bacterial identification, and gene-based food safety analysis. We also provide ATP hygiene monitoring tools for rapid, on-site cleanliness testing in food production environments. Trusted by food manufacturers, Tianlong's technologies support both real-time production control and laboratory diagnostics, and are widely recognized for their reliability and effectiveness in ensuring hygiene compliance.

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ZeptoMetrix **811**
25 Kenwood Circle, #6
Franklin, MA 02038, USA
Phone: +1 508.838.3108
www.zeptometrix.com

ZeptoMetrix is the industry leader and manufacturer for innovative solutions solving challenges in the evolving Diagnostic Microbiology, Infectious Disease, and Oncology markets, as well as Analytical Reference Materials for the Applied Markets. We focus on our customer's success by providing premium product quality, reliability, and expert technical knowledge, enabling our customers to develop and advance many applications across diagnostics, pharmaceutical, environmental, food and beverage industries. From in-stock solutions to custom control and panel development, our scientific teams provide our customers with comprehensive, performance-oriented, and cost-effective products and services that positively impact the field of clinical diagnostics, analytical testing and contribute to a healthier world.

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POLICY ON COMMERCIALISM FOR ANNUAL MEETING PRESENTATIONS

1. INTRODUCTION

No printed media, technical sessions, symposia, posters, seminars, short courses, and/or other related types of forums and discussions offered under the auspices of the International Association for Food Protection (hereafter referred to as to Association forums) are to be used as platforms for commercial sales or presentations by authors and/or presenters (hereafter referred to as authors) without the express permission of the staff or Executive Board. The Association enforces this policy in order to restrict commercialism in technical manuscripts, graphics, oral presentations, poster presentations, panel discussions, symposia papers, and all other type submissions and presentations (here-after referred to as submissions and presentations), so that scientific merit is not diluted by proprietary secrecy.

Excessive use of brand names, product names or logos, failure to substantiate performance claims, and failure to objectively discuss alternative methods, processes, and equipment are indicators of sales pitches. Restricting commercialism benefits both the authors and recipients of submissions and presentations.

This policy has been written to serve as the basis for identifying commercialism in submissions and presentations prepared for the Association forums.

2. TECHNICAL CONTENT OF SUBMISSIONS AND PRESENTATIONS

2.1 Original Work

The presentation of new technical information is to be encouraged. In addition to the commercialism evaluation, all submissions and presentations will be individually evaluated by the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff on the basis of originality before inclusion in the program.

2.2 Substantiating Data

Submissions and presentations should present technical conclusions derived from technical data. If products or services are described, all reported capabilities, features or benefits, and performance parameters must be substantiated by data or by an acceptable explanation as to why the data are unavailable (e.g., incomplete, not collected, etc.) and, if it will become available, when. The explanation for unavailable data will be considered by the Program Committee chairperson and/or technical Policy on Commercialism for Annual Meeting Presentations reviewers selected by the Program Committee chairperson to ascertain if the presentation is acceptable without the data. Serious consideration should be given to withholding submissions and presentations until the data are available, as only those conclusions that might be reasonably drawn from the data may be presented. Claims of benefit and/or technical conclusions not supported by the presented data are prohibited.

2.3 Trade Names

Excessive use of brand names, product names, trade names, and/or trademarks is forbidden. A general guideline is to use proprietary names once and thereafter to use generic descriptors or neutral designations. Where this would make the submission or presentation significantly more difficult to understand, the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff, will judge whether the use of trade names, etc., is necessary and acceptable.

2.4 "Industry Practice" Statements

It may be useful to report the extent of application of technologies, products, or services; however, such statements should review the extent of application of all generically similar technologies, products, or services in the field. Specific commercial installations may be cited to the extent that their data are discussed in the submission or presentation.

2.5 Ranking

Although general comparisons of products and services are prohibited, specific generic comparisons that are substantiated by the reported data are allowed.

2.6 Proprietary Information (See also 2.2.)

Some information about products or services may not be publishable because it is proprietary to the author's agency or company or to the user. However, the scientific principles and validation of performance parameters must be described for such products or services. Conclusions and/or comparisons may be made only on the basis of reported data.

2.7 Capabilities

Discussion of corporate capabilities or experiences are prohibited unless they pertain to the specific presented data.

3. GRAPHICS

3.1 Purpose

Slides, photographs, videos, illustrations, art work, and any other type visual aids appearing with the printed text in submissions or used in presentations (hereafter referred to as graphics) should be included only to clarify technical points. Graphics which primarily promote a product or service will not be allowed. (See also 4.6.)

3.2 Source

Graphics should relate specifically to the technical presentation. General graphics regularly shown in, or intended for, sales presentations cannot be used.

POLICY ON COMMERCIALISM FOR ANNUAL MEETING PRESENTATIONS

3.3 Company Identification
Names or logos of agencies or companies supplying goods or services must not be the focal point of the slide. Names or logos may be shown on each slide so long as they are not distracting from the overall presentation.

3.4 Copies
Graphics that are not included in the preprint may be shown during the presentation only if they have been reviewed in advance by the Program Committee chairperson, session convenor, and/or staff, and have been determined to comply with this policy. Copies of these additional graphics must be available from the author on request by individual attendees. It is the responsibility of the session convenor to verify that all graphics to be shown have been cleared by Program Committee chairperson, session convenor, staff, or other reviewers designated by the Program Committee chairperson.

4. INTERPRETATION AND ENFORCEMENT

4.1 Distribution
This policy will be sent to all authors of submissions and presentations in the Association forums.

4.2 Assessment Process
Reviewers of submissions and presentations will accept only those that comply with this policy. Drafts of submissions and presentations will be reviewed for commercialism concurrently by both staff and technical reviewers selected by the Program Committee chairperson. All reviewer comments shall be sent to and coordinated by either the Program Committee chairperson or the designated staff. If any submissions are found to violate this policy, authors will be informed and invited to resubmit their materials in revised form before the designated deadline.

4.3 Author Awareness
In addition to receiving a printed copy of this policy, all authors presenting in a forum will be reminded of this policy by the Program Committee chairperson, their session convenor, or the staff, whichever is appropriate.

4.4 Monitoring
Session convenors are responsible for ensuring that presentations comply with this policy. If it is determined by the session convenor that a violation or violations have occurred or are occurring, he or she will publicly request that the author immediately discontinue any and all presentations (oral, visual, audio, etc.) and will notify the Program Committee chairperson and staff of the action taken.

4.5 Enforcement
While technical reviewers, session convenors, and/or staff may all check submissions and presentations for commercialism, ultimately it is the responsibility of the Program Committee chairperson to enforce this policy through the session convenors and staff.

4.6 Penalties
If the author of a submission or presentation violates this policy, the Program Committee chairperson will notify the author and the author's agency or company of the violation in writing. If an additional violation or violations occur after a written warning has been issued to an author and his agency or company, the Association reserves the right to ban the author and the author's agency or company from making presentations in the Association forums for a period of up to two (2) years following the violation or violations.

DEVELOPING SCIENTIST COMPETITORS AND UNDERGRADUATE STUDENT COMPETITORS

DEVELOPING SCIENTIST COMPETITORS

Abdelkader, Nada, University of Kentucky (P3-106)
Aboagye, Eurydice, University of Vermont (T4-04)
Acosta, Anna, The Pennsylvania State University (P3-194)
Adelusi, Oluwasola, University of Johannesburg (T18-01)
Adeyanju, Adenike, University of Massachusetts Amherst (P1-31)
Adhikari, Pratikchhya, Oklahoma State University (P1-131)
Adjetey, Angelina, Iowa State University of Science and Technology (MP-08)
Aduloju, Precious, West Virginia University (P3-38)
Afari, Edmund Larbi, Washington State University (P1-173)
Akao, Victor, Florida Agricultural and Mechanical University (P1-196)
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Workshop 1 Demystifying Dry Cleaning: When, How, and Why of Dry Cleaning and Sanitizing

Workshop 2 Developing Environmental Monitoring Programs for Food Processors

Workshop 3 Unlocking Bacterial Genomics: A Workshop on WGS and Metagenomic Analyses

SATURDAY, JULY 26 (8:30 A.M. - 5:00 P.M.)

Workshop 4 Access Food Safety Culture: Choosing Methods and Maximising Results

Workshop 5 ICMSF Useful Microbiological Sampling and Testing in Food Safety

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- Huntington Park Garage Tunnel
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- Water Bottle Refill Stations
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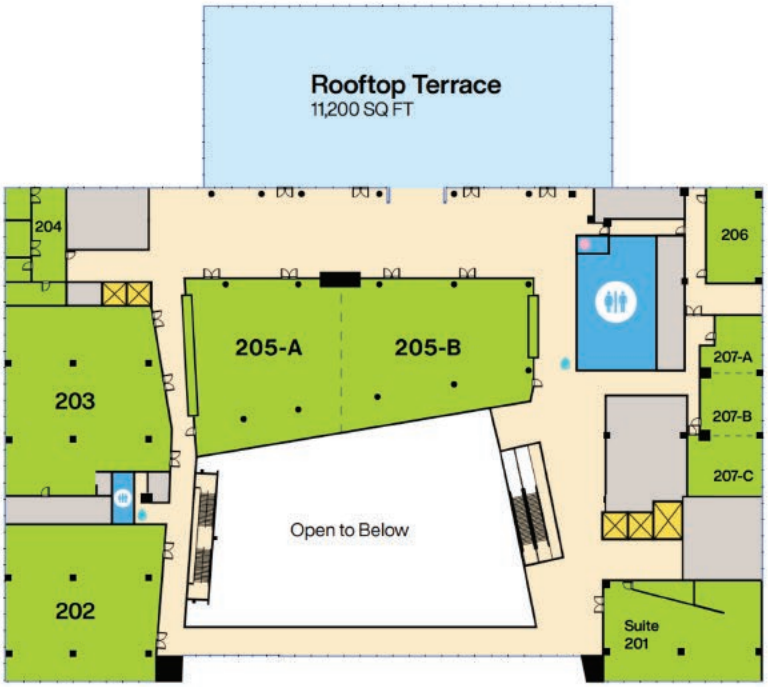

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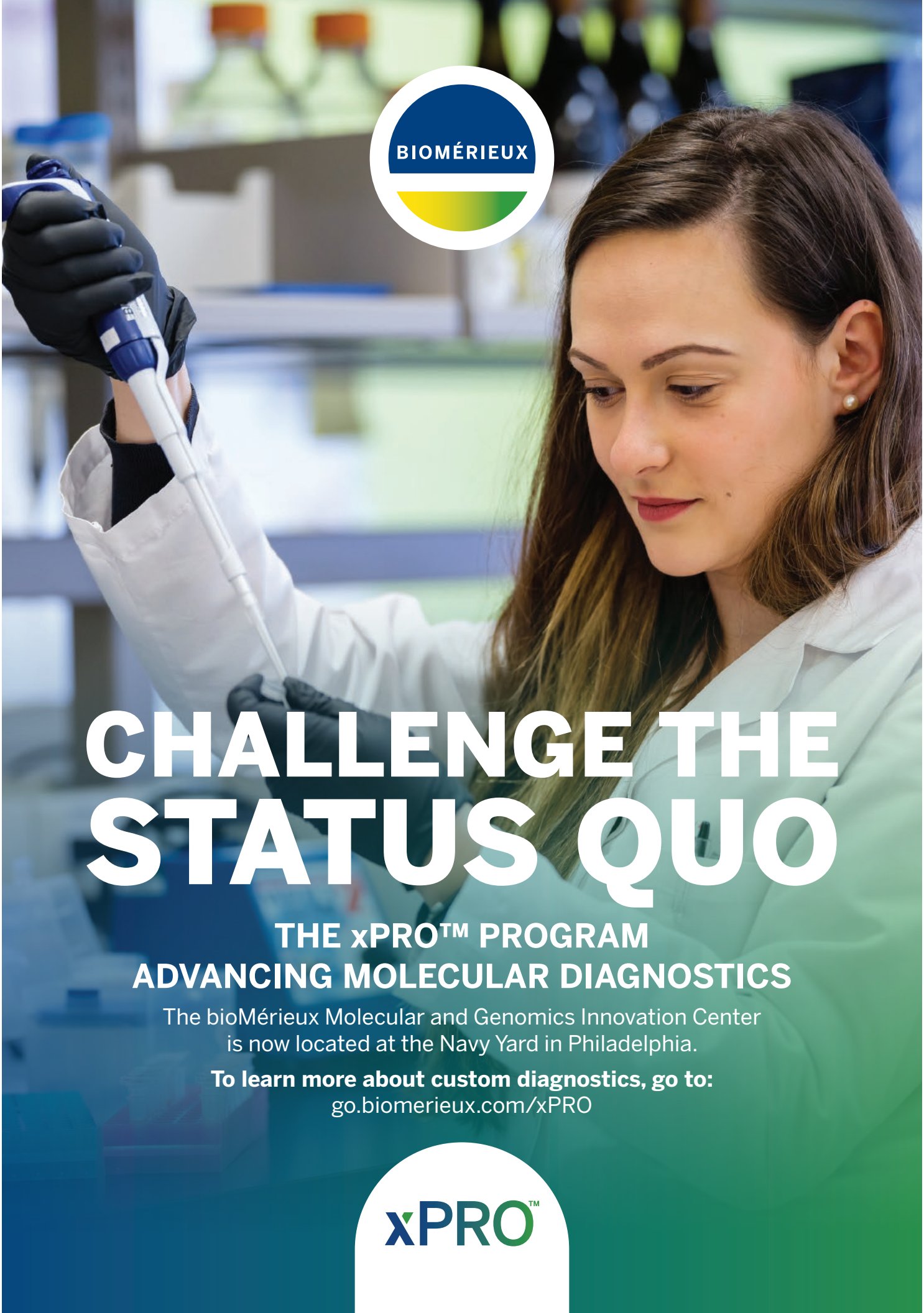
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1912 – Milwaukee, WI
1913 – Chicago, IL
1914 – Chicago, IL
1915 – Washington, D.C.
1916 – Springfield, MA
1917 – Washington, D.C.
1918 – Chicago, IL
1919 – New York, NY
1920 – Chicago, IL
1921 – New York, NY
1922 – St. Paul, MN
1923 – Washington, D.C.
1924 – Detroit, MI
1925 – Indianapolis, IN
1926 – Philadelphia, PA
1927 – Toronto, Ontario
1928 – Chicago, IL
1929 – Memphis, TN
1930 – Cleveland, OH
1931 – Montreal, Quebec
1932 – Detroit, MI
1933 – Indianapolis, IN
1934 – Boston, MA
1935 – Milwaukee, WI
1936 – Atlantic City, NJ
1937 – Louisville, KY
1938 – Cleveland, OH
1939 – Jacksonville, FL
1940 – New York, NY
1941 – Tulsa, OK
1942 – St. Louis, MO
1943 – Cancelled
1944 – Chicago, IL
1945 – Cancelled
1946 – Atlantic City, NJ
1947 – Milwaukee, WI
1948 – Philadelphia, PA
1949 – Columbus, OH
1950 – Atlantic City, NJ
1951 – Glenwood Springs, CO
1952 – Milwaukee, WI
1953 – East Lansing, MI
1954 – Atlantic City, NJ
1955 – Augusta, GA
1956 – Seattle, WA
1957 – Louisville, KY
1958 – New York, NY
1959 – Glenwood Springs, CO
1960 – Chicago, IL
1961 – Des Moines, IA
1962 – Philadelphia, PA
1963 – Toronto, Ontario
1964 – Portland, OR
1965 – Hartford, CT
1966 – Minneapolis, MN
1967 – Miami Beach, FL
1968 – St. Louis, MO
1969 – Louisville, KY
1970 – Cedar Rapids, IA
1971 – San Diego, CA
1972 – Milwaukee, WI
1973 – Rochester, NY
1974 – St. Petersburg, FL
1975 – Toronto, Ontario
1976 – Arlington Heights, IL
1977 – Sioux City, IA
1978 – Kansas City, MO
1979 – Orlando, FL
1980 – Milwaukee, WI
1981 – Spokane, WA
1982 – Louisville, KY
1983 – St. Louis, MO
1984 – Edmonton, Alberta
1985 – Nashville, TN
1986 – Minneapolis, MN
1987 – Anaheim, CA
1988 – Tampa, FL
1989 – Kansas City, MO
1990 – Arlington Heights, IL
1991 – Louisville, KY
1992 – Toronto, Ontario
1993 – Atlanta, GA
1994 – San Antonio, TX
1995 – Pittsburgh, PA
1996 – Seattle, WA
1997 – Orlando, FL
1998 – Nashville, TN
1999 – Dearborn, MI
2000 – Atlanta, GA
2001 – Minneapolis, MN
2002 – San Diego, CA
2003 – New Orleans, LA
2004 – Phoenix, AZ
2005 – Baltimore, MD
2006 – Calgary, Alberta
2007 – Lake Buena Vista, FL
2008 – Columbus, OH
2009 – Grapevine, TX
2010 – Anaheim, CA
2011 – Milwaukee, WI
2012 – Providence, RI
2013 – Charlotte, NC
2014 – Indianapolis, IN
2015 – Portland, OR
2016 – St. Louis, MO
2017 – Tampa, FL
2018 – Salt Lake City, UT
2019 – Louisville, KY
2020 – Virtual
2021 – Phoenix, AZ
2022 – Pittsburgh, PA
2023 – Toronto, Ontario
2024 – Long Beach, CA

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IAFP 2027
July 18–21
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IAFP 2028
July 23–26
Charlotte, North Carolina

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