**S-1077 Project Publications**

**Peer Reviewed Publications**

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**Abstracts, Proceedings, and Presentations**

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| Camfield, E., V. Dia, and D.H. D’Souza. Heat inactivation kinetics of hepatitis A virusin chicken pot-pie filling and process validation using Staphylococcus carnosus CS 300 as asurrogate. IFT Annual Meeting (Virtual) Poster Presentation, Virtual Conference. July 2021. Poster.Camfield, E., A. Bowman, K. Gwinn, B. Ownley, N. Labbe, and D. H. D’Souza.Switchgrass extractives against Salmonella enterica serovar Typhimurium in vitro and inplanta. IAFP Annual Meeting, Poster Presentation, Phoenix, Arizona. July 2021. Poster.Camfield, E., B. Pendyala, A. Patras, and D.H. D’Souza. Comparison of ultravioletlight (UV) systems for the inactivation of feline calicivirus in buffer and on Formicacoupons. IAFP Annual Meeting, Poster Presentation, Phoenix Arizona, July 2021. Poster. |
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| Annor, S.D. and T.M. Taylor. 2020. Development of a novel plating medium for the differential identification of Escherichia albertii. 14th Dubai Food Safety International Conference, Dubai, United Arab Emirates (Meeting Held Virtually).Annor, S.D. and T.M. Taylor. 2021. Development of a novel plating medium for selective and differential identification of Escherichia albertii from E. coli and Salmonella enterica. International Association for Food Protection Annual Meeting, Phoenix, AZ. Abstract P2-46Taylor, T.M., C. Wong de la Rosa, R. Moreira, and C.R. Kerth. 2021. Thermal inactivation validation for Salmonella enterica in chicken feathers during simulated commercial rendering. International Association for Food Protection Annual Meeting, Phoenix, AZ. Abstract P3-92. |
| Deblais, L., Y.T. Mekonnen, M. Ghanem, Y. Helmy, D. Chen, N. Singh, V. Ahyong, K. Kalantar, G. Yimer, J.Y. Hassen, A. Mohammed, S. McKune, M. Manary, I. Ordiz, W. Gebreyes, A. Havelaar, G. Rajashekara. 2020. Meta-Total RNA Sequencing (MeTRS) to determine the prevalence and diversity of Campylobacter species in children stools from Eastern Ethiopia and its association with environmental enteric disfunction (EED). ASM Conference on Rapid Applied Microbial Next-Generation Sequencing and Bioinformatic Pipelines (December 7-11, 2020, Online).Deblais, L, H. Huang, V. Srivastava, A. N. Vlasova, M. Husheem, D. D. Fischer, F. C. Paim, S. N. Langel, M. A. Alhamo, L. J. Saif, and G. Rajashekara. 2021. Tryptophan and Escherichia coli Nissle 1917 improved the microbiota of rotavirus-infected malnourished gnotobiotic pigs transplanted with human infant fecal microbiota. Keystone symposia on Molecular and Cellular Biology, The Microbiome: From Mother to Child (January 19-20, 2021, Online)Deblais L, YT Mekonnen, D Lokesh, M Ghanem, Y Mohamed, D Chen, N Singh, V Ahyong, K Kalantar, G Yimer, JY Hassen, A Mohammed, S McKune, M Manary, I Ordiz, W Gebreyes, A Havelaar, G Rajashekara. 2020. Campylobacter species prevalence, diversity and co-occurrence in children from eastern Ethiopia”, Feed the Future innovation lab for livestock system (October 2020, Online) Deblais L, D Lokesh, YT Mekonnen, AE Ojeda, A Havelaar, G Rajashekara. 2020. Development of optimal standard operation protocols to detect, isolate, and quantify Campylobacter spp. in environmental samples. Feed the Future innovation lab for livestock system (October 2020, Online)Helmy Y. A., G. Closs Jr, K. Jung, D. Kathayat, V. Srivastava, A. Vlasova and G. Rajashekara. 2021. Probiotic Escherichia coli Nissle 1917 (EcN) (free and chitosan-microencapsulated) reduces Campylobacter jejuni colonization in chickens. ASM World Microbe Forum (June 20-24, 2021, Online).Mammel M.K., T. K.S. Richter, D. W. Lacher, M. Kauffman, S. T. Gebru, C. Champ, G. Rajashekara, S. R. Leonard. 2021. Evaluation of a Bait-Capture method for Metagenomic Detection of Shiga Toxin-Producing Escherichia coli in Environmental samples. 2021 IAFP meeting (July 18-21 in Phoenix, AZ)Kaufmann A., S. Sepehril, M. Kauffman, G. Rajashakara, E. Lipp, A. M. Zimeri, S. Rosier, M. Sharma, A. R. Sapkota, S. Micallef, K. Kniel, S. Parveen, F. Hashem, and L. Burall. 2021. Updated prevalence and persistence evaluation of Listeria monocytogenes 4bV subset. 2021 IAFP meeting (July 18-21, 2021 in Phoenix, AZ)Moodispaw, M., Lewis Ivey, M.L., and Ilic, S. 2021. Effectiveness of surface sanitizers against Salmonella spp. in hydroponic lettuce systems. 17th Annual Russell Klein Nutrition Research Symposium, Columbus OH.Moodispaw, M., Lewis Ivey, M.L., and Ilic, S. 2021. Effectiveness of surface sanitizers against Salmonella spp. in hydroponic lettuce systems. 2021 CFAES Annual Research Symposium, Columbus OH.Barkley, J.D.; Davila, V.; Galvan, K.; Yao, C.; Balada-Llasat, J.M.; Scharff, R.; Kowalcyk, B. (2021). Impact of the COVID-19 Pandemic on Foodborne Disease Healthcare-Seeking Behavior and Diagnosis. International Association for Food Protection Annual Meeting.Beczkiewicz, A.; Kowalcyk, B.B. (2021). Comparison of Statistical Methods for Identifying Salmonella Contamination Risk Factors of Whole Chicken Carcasses. International Association of Food Protection Annual Meeting. Garsow, A.; Torres, O.; Matute, J.; Riley, R.; Lamichhane, A.; Kowalcyk, B. (2021). Dietary and Socioeconomic Risk Factors for Fumonisin Exposure among Reproductive Age Women in Guatemala. International Association for Food Protection Annual Meeting.Howell, A.; Kowalcyk, B.B. (2021). Analysis of Methodology Used to Classify Produce Commodities as Rarely Consumed Raw. International Association for Food Protection Annual Meeting.Kowalcyk, B.; Wright, N.; Morgan, K.; Landers, B. (2021). Food Safety Knowledge, Training and Practice Among Ohio Food Pantry Volunteers. International Association for Food Protection Annual Meeting.Morgan, K.; Davila, V.; Balada-Llasat, J.M.; Kowalcyk, B. (2021). Developing an Expert Model for the Diagnosis of Foodborne Illness. International Association for Food Protection Annual Meeting. |
| Gonzalez Sanchez, S., I. Geornaras, J. O. Reagan, S. Mixon, M. N. Nair, and K. E. Belk. 2021. Antimicrobial efficacy of chemical treatments against two inoculation levels of Salmonella enterica on pork jowls. 74th Reciprocal Meat Conference, American Meat Science Association, 16-18 August, Reno, NV. Abstract No. 100.Liu, T., J. M. Bosilevac, T. Wheeler, T. Arthur, M. Jia, I. Geornaras, V. Dutta, K. Belk, and H. Yang. 2020. Evaluation of GENE-UP® New Markers EHEC for detection of Shiga toxin-producing Escherichia coli in MicroTally sheets collected from beef carcasses. Virtual Annual Meeting of the International Association for Food Protection, October 26-28. Abstract No. P2-70. |
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| Schwan, C., T. J. Dallman, P.W. Cook, and J.L. Vipham. 2021. A Case Report of Salmonella enterica Serovar Corvallis from Environmental Isolates from Cambodia and Clinical Cases in the United Kingdom. Presented at the International Association for Food Protection Annual Meeting, Phoenix, AZ. (Poster)Haley, O., Zhao, Y., Maher, J.M., Gragg, S.E., Trinetta, V., Bhullar, M.S., & Nwadike, L. 2021. Comparative assessment of the microbial quality of agricultural water on Kansas and Missouri fresh produce farms. K-State Graduate Research, Arts, and Discovery (GRAD) Forum, March 2021 Zhao, Y., Stoeckel, D., Bhullar, M.S., & Nwadike, L. 2021. Knowledge and current practices related to agriculture water microbial quality among Kansas and Missouri produce growers. IAFP Annual Meeting to be held from July 19th-21st, 2021.  |
| Lovell IM, Ritchie CR, Bisha B, Gifford CL. Characterizing Ground Beef Throughout Various Storage Length Intervals Followed by Simulated Retail Display. AMSA Reciprocal Meat Conference. August 16 – August 18, 2021, Reno, NV. Kaur H, Ruehling K, Collins S, Bisha B. Characterization of Antimicrobial Resistance in Indicator Bacteria (E. coli and Enterococcus spp.) from Surface Waters of Wyoming. International Association for Food Protection Annual Meeting. July 18 – July 21, 2021, Phoenix, AZ.Ghorbani Tajani A, Carr J, Elbakush A, Bisha B, and Gomelsky M. Evaluation of an Enzymatic Treatment to Control Listerial Biofilm on Produce. International Association for Food Protection Annual Meeting. July 18 – July 21, 2021, Phoenix, AZ.Broten CJ, Bisha B. Development of a Paper-based test for discrimination of Listeria spp. International Association for Food Protection Annual Meeting. International Association for Food Protection Annual Meeting. July 18 – July 21, 2021, Phoenix, AZ. |
| Yifan Wu\*,#. John W. Schmidt, Terrance M. Arthur, and Bing Wang. Antimicrobial-resistant non-typhoidal Salmonella in various foods at retail in the United States: A rapid systematic review and meta-analysis. Poster presentation at IAFP 2021 Annual Meeting, Phoenix, Arizona. July 18 - 21, 2021.Constanza Avello\*,#, Yulie Meneses, Faith Critzer, Xu Li and Bing Wang. Water treatment options to mitigate E. coli in water used by small raspberry farmers in Chile: A rapid systematic review. Poster presentation at IAFP 2021 Annual Meeting, Phoenix, Arizona. July 18 - 21, 2021.Anna Rose Pilapil\*, Jayne Stratton, Andreia Bianchini, Bing Wang, and Emily Robinson. Surrogates for Listeria monocytogenes for high pressure processing validation studies (26940). Poster presentation at IAFP 2021 Annual Meeting, Phoenix, Arizona. July 18 - 21, 2021.Mara Zelt\*, Amy M. Schmidt, Zachary Staley, Xu Li, Bing Wang, Dan Miller. Antibiotic resistance profiles in fallow soil receiving raw, composted or stockpiled beef manure, or inorganic fertilizer. Accepted as poster presentation at the 6th World Once Health Congress (virtual event). October 30 - November 3, 2020. |
| Evaluation of the Ability of Two Enterococcus spp. Strains to Inhibit Listeria monocytogenes in Monoculture and in the Context of a Complex Microbiome (T609). Priscilla Sinclair, Jasna Kovac, Luke LaBorde, Jingzhang Feng. IAFP Annual Meeting, International Association of Food Protection, Phoenix, AZ, July 2021.Fenton, G.D. and Kaylegian, K.E. Assessing the Technical Support Needs of Pennsylvania Dairy Foods Processor. Penn State Extension Annual Conference. Virtual. April 2021.Connolly, C. J., Kovac, J., & Cutter, C. N. 2020. Effect of DNA Extraction Method on qPCR Efficiency for Pathogens in Ground Beef. International Association of Food Protection Annual Meeting, October 2020.  Connolly, C., J. Kovac, and C. N. Cutter. 2021. Comparison of Viability qPCR and Culture-Based Quantification in Challenge Studies. International Association of Food Protection Annual Meeting, August 2021. |
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| P1-158 - Differences in Salmonella Survival between Strains in Low Water Activity Environments is Only Partially Explained by Genome Differences, Matthew J. Igo, Edward G. Dudley and Donald W. Schaffner, International Association for Food Protection 2021 Annual MeetingP2-138 - The Effect of Inoculation Method on Growth of Listeria monocytogenes on the Surface of Ten Different Types of Whole Uncut Fresh Produce, Marina Girbal, Laura K. Strawn, Claire Murphy, Cameron Bardsley, Joyce Zuchel and Donald W. Schaffner, International Association for Food Protection 2021 Annual Meeting |
| Dhital, R. and A. Mustapha. 2021. A multiplex high-resolution melt-curve real-time PCR assay for the detection of ESBL-producing E. coli O157:H7 in foods. Presented at the International Association for Food Protection Annual Meeting, Phoenix, AZ, July21, 2021; P3-118.  |
| Raftopoulou, M. Kudenov, E.T. Ryser, R. Beaudry, and S. Kathariou. 2021. The use of ultraviolet spectroscopy for non-invasive detection of viable Listeria monocytogenes on apples. Ann. Mtg. Int. Assoc. Food Prot., Phoenix, AZ, July 18-21.Gunathilaka, G., J. He, H. Li, W. Zhang, and E.T. Ryser. 2021. Effect of sanitizers and organic load on decontamination effectiveness of AgNPs from contaminated lettuce. Ann. Mtg. Int. Assoc. Food Prot., Phoenix, AZ, July 18-21.Sloniker, N., O. Raftopoulou, S. Kathariou, R. Beaudry, and E.T. Ryser. 2021 Survival of planktonic- and biofilm-grown Listeria monocytogenes on apples as affected by waxing and storage conditions. Ann. Mtg. Int. Assoc. Food Prot., Phoenix, AZ, July 18-21.Ryser, E.T., S. Kathariou, R. Beaudry, C. Parsons, D. Matthews, and R. Raftopoulou. 2021 Fate of different Listeria monocytogenes strains on different whole apple varieties during long-term simulated commercial storage. Abst. Ann. Mtg. Center for Produce Safety. June 28 (virtual).Sloniker, N., O. Raftopoulou, S. Katharuiou, and E.T. Ryser. 2020. Survival of planktonic- and biofilm-grown Listeria monocytogenes on apples as affected by apple variety, grower region, and storage conditions. Ann. Mtg. Int. Assoc. Food Prot., Cleveland, OH, October 25-28.Gunathilaka, G., J. He, H Li, W. Zhang, and E.T. Ryser. 2020. Current practices are ineffective for removing residual silver nanoparticles from contaminated fresh produce. Ann. Mtg. Int. Assoc. Food Prot., Cleveland, OH, October 25-28.Ahmad, N., B.P. Marks, and E.T. Ryser. 2020. Effect of sugar composition on resuscitation of Salmonella and Enterococcus faecium NRRL B-2354 survivors in heat-treated skim milk powder and lactose-free skim milk powder. Ann. Mtg. Int. Assoc. Food Prot., Cleveland, OH, October 25-28.Gomez, C, E.T. Ryser, and B.P. Marks. 2020. Kitchen-scale treatments for reduction of Listeria monocytogenes in prepared produce for immunocompromised populations. Ann. Mtg. Int. Assoc. Food Prot., Cleveland, OH, October 25-28. |
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|  Liao, C., A. Tomas-Callejas, K. Kushwaha, D. A. Davis, B. Hidri, V. Zuliani, and L. Wang. 2020. Impact of the colonization of *Lactobacillus curvatus* on the formation of Listeria monocytogenes biofilm on stainless steel. International Association for Food Protection Annual Meeting Abstract P3-101. October 26th - 28th 2020. Virtual. |
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| Listeria in food systems. Student American Veterinary Chapter, Iowa State University 02 April 2021.Dickson, J.S. 2021. Pork Safety and the New Swine Inspection System. International Association for Food Protection, 20 July 2021. Phoenix AZ.Dickson, J.S. 2021. Interpreting Validation Studies: How Do the Results Apply to the Real World? International Association for Food Protection, 20 July 2021. Phoenix AZ. |
| Camfield, E., V. Dia, and D.H. D’Souza. Heat inactivation kinetics of hepatitis A virusin chicken pot-pie filling and process validation using Staphylococcus carnosus CS 300 as asurrogate. IFT Annual Meeting (Virtual), Student Competition Oral Presentation, Virtual Conference. July 2021. (3rd place Food Microbiology Division) |
| Practical Tools and Solutions for Developing and Implementing Your Food Safety Plan. Presented at the 2021 annual conference of the American Cheese Society.Aljasir, S., and D. D'Amico. 2021. Pre-Exposure to Protective Bacterial Cultures in Food Attenuates Listeria monocytogenes virulence. J Food Prot. 84 (sp1): 50. https://doi.org/10.4315/0362-028X-84.sp1.1 |
| De Cicco, M., and Etter, A. J. October 2020. "Prevalence of Salmonella Enterica in Backyard Chickens in Vermont and Survey of Owners' Salmonella knowledge and Biosecurity Practices." Technical Talk. International Association for Food Protection Annual Meeting. Cleveland, OH. |
| Doshna, NA\* and Goddard, JM. IFTSA 20: Antimicrobial Active Packaging Synthesized through Reactive Extrusion. In: Undergraduate Research Competition. Institute of Food Technologists, Chicago, IL. July 22, 2020. Doshna was awarded 1st place!Doshna, NA\*, Goddard, JM. Antimicrobial active packaging synthesized by reactive extrusion of polypropylene and polylysine, a natural antimicrobial. Agricultural and Food Chemistry Division, American Chemical Society. Virtual, April 6, 2021.Goddard, JM\*, Moderator; Gomes, CL; Zheng, J; Wiedmann, M, and Wu, F, Panelists. Digital Systems Approaches to Enhance Food Safety. Moderated Symposium at Institutes of Food Technologists Annual Meeting; July 2021.Rudlong, Autumn; and Goddard, Julie. Oral Presentation. Synthesis and characterization of antimicrobial dihydroxy quaternary ammonium bromides. American Chemical Society National Meeting & Exposition. Atlanta, GA. August 22-26, 2021.  |
| Taylor, T.M. 2021. Validating pathogen control in carcass components during rendering: research update and existing data gaps. International Association for Food Protection Annual Meeting, Phoenix, AZ. Session S-12 |
| Kowalcyk, B.B. (2020). Food Safety and One Health – Approaches to Reducing Foodborne Pathogens and Zoonotic Diseases. Feed the Future Innovation Lab for Food Safety. Lecture conducted virtually from Columbus, OH. Invited.Kowalcyk, B.B. (2020). TARTARE: Improving Food Safety in Ethiopia. United Kingdom Department for International Development Nutrition Hub Seminar. Lecture conducted virtually from Columbus, OH. Invited.Kowalcyk, B.B. (2020). Translating Science into Food Safety Policy and Practice. USDA Food Safety and Inspection Service Stakeholder Meeting. Lecture conducted virtually from Columbus, OH. Invited. |
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| Hung, Y.-C. 2020. “Is no growth on plate after sanitizer treatment safe?” International Association of Food Protection, Virtual annual meeting. Oct. 26-28, 2020. |
| Sanitation in the era of COVID-19 was presented to food industry workers on 4 occasions at the end of 2020 and early 2021. |
| Feed the Future Innovation Lab for Food Safety Webinar Series. Linking Food Safety with Health and Nutrition: Insights and Priorities (webinar). February 2021. https://ag.purdue.edu/food-safety-innovation-lab/projects/resources/linking-food-safety-with-health-and-nutrition-insights-and-priorities-webinar-video/Global Agriculture Innovation Forum Webinar Series. Innovations to Ensure Food Safety and Quality. https://mailimages.purdue.edu/vo/?FileID=5b338a6b-a44d-432a-8c56-dcce1ab675ec&m=db3468f6-6640-49ed-a1f2-f8e7dd48b14b&MailID=41605765&listid=1004686&RecipientID=20555933916  |
| Bisha B. U.S. Perspectives on Monitoring Antimicrobial Resistance in Food Animals, Retails Meats, and People. International Symposium: Contemporary Regulatory and Scientific Issues in Meat Safety. July 2, 2021, Pristina, Kosovo.  |
| Bing Wang. A comparative assessment of human exposure to various antimicrobial resistant bacteria among U.S. ground beef consumers. Presented at 2021 Meat Industry Food Safety Conference. Virtual event. August 24-26, 2021.Bing Wang. Risk-based, systems approach to controlling microbial safety of produce products. Presented to Del Monte. Virtual event. June 7, 2021.Bing Wang. A comparative quantitative assessment of human exposure to various antimicrobial resistant bacteria among U.S. ground beef consumers. Presented at the National Institute of Antimicrobial Resistance Research and Education (NIAMRRE) Annual Conference. Virtual event. April 20, 2021.Anna Rose Pilapil\*, Jayne Stratton, Andreia Bianchini, Bing Wang, and Emily Robinson. Surrogates for Listeria monocytogenes for high pressure processing validation studies (5733). Oral presentation at the European Federation of Chemical Engineering online event on Alternative food technologies – Science meets the industry. May 25 – 27, 2021. (https://efce.info/efce\_media/-p-9691-EGOTEC-a7c016828bfe0a46e2ff9b1cf59c0e40.pdf) |
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| Cezarotto, M. A., Martinez, P. N., Muise, A. S., Chamberlin, B. A., ACE Virtual Conference - elevating voices, "Accessibility framework: understanding and integrating accessibility concerns into your design process.," Association for Communication Excellence (ACE), online. (June 23, 2021).Martinez, P. N., Muise, A. S., Cezarotto, M. A., Chamberlin, B. A., ACE Virtual Conference - elevating voices, "Serving Users with Virtual Labs in a Time of Distance Learning," Association for Communication Excellence (ACE), online. (June 22, 2021).Blake, C., Roberson, M., Chamberlin, B. A., Badour, J., 2021 Agricultural Outlook Forum, "Ensuring Food Safety Through Science, Data and Behavior Change," United States Department of Agriculture, Online (Washington, DC). (February 19, 2021).Chamberlin, B. A., Developer's Meeting, "Constructivist Learning in Game Design," Let's Talk Science, London, ON, Canada. (December 4, 2020).Chamberlin, B. A., International Food Information Council Annual Meeting, "Designing to Change: Reaching Learners in New Ways with New Media," International Food Information Council (IFIC), Online. (November 18, 2020).Chamberlin, B. A., Semana D: Design Transforma (D Week: Design Transformations), "Guiding Principles for User Testing: How People Think and Communicate their Ideas," Centro Brasil Design and ProDesign, Paraná Association of Design Companies and Professionals, Curtiba, Brazil (online). (November 9, 2020).Chamberlin, B. A., International Association for Food Protection International Conference, "Reaching Youth Audiences through Digital Media and Games: Challenges and Personal Experience," IAFP, Online (Virtual). (October 28, 2020).Chamberlin, B. A., Martinez, P. N., National Association of Extension 4-H Agents Annual Conference, "Designing for Change: A Simple Model for Creating Effective Learning Tools," NAE4-HA, Boise, Idaho (Online). (October 20, 2020).Chamberlin, B. A., Virtual Public Meeting Food Safety: Consumer Outreach and Education Today and for the Future, "Educational Food Safety Materials for Consumers," USDA FSIS, Online. (October 6, 2020). |
| Stasiewicz, M.J. 2021. Can we Test Produce to Safety? Global Agriculture Innovation Forum. Purdue University. Jul. 13, 2021. |
| More than 60 presentations to a variety of extension and academic audiences on food safety. |
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| Ryser, E.T., S. Kathariou, R. Beaudry, C. Parsons, D. Matthews, and R. Raftopoulou. 2021 Fate of different *Listeria monocytogenes* strains on different whole apple varieties during long-term simulated commercial storage. Abst. Ann. Mtg. Center for Produce Safety. June 28 (virtual). |
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