

**Publications**  
**2007 Annual Report**  
**S-1033**

**Journal Articles**

Antony, S., J.R. Rieck, J.C. Acton, I.Y. Han, E.L. Halpin, and P.L. Dawson. 2006. Effect of dry honey on the shelf life of packaged turkey roll slices. *Poultry Science* (85):1821-1828).

Arritt F., J. Eifert, M. Jahncke, M. Pierson, R. Williams. 2007. Effects of modified atmosphere packaging on toxin production by *Clostridium botulinum* in raw aquacultured summer flounder fillets (*Paralichthys dentatus*). *Journal of Food Protection*. 70(5):1159-1164.

Baker, D., Moxley, R, Steele, M., LeJeune J., Christopher-Hennings, J., Chen., Hardwidge, P., and Francis, D.(2007) Virulence variation among *Escherichia coli* O157:H7 strains isolated from human disease outbreaks and healthy cattle *Appl Environ Microbiol* 73:7338-46

Bazaco M., J. Eifert, R. Williams, S. Kathariou. 2007. Quantitative recovery of *Listeria monocytogenes* and select *Salmonella* serotypes from environmental sample media. *Journal of AOAC International*. 90(1):250-257.

Boinapally, K., and X. Jiang. 2007. Microbiological analysis of wild-caught South Carolina shrimp and farm-raised imported shrimp. *Can. J. Microbiol.* (in press)

Bowman, A, Glendening, C, Wittum, T, LeJeune, J, Stich, R, and Funk. 2007. Prevalence of *Yersinia enterocolitica* in different phases of production on swine farms. *J Food Prot.* 70(1):11-6.

Boyer, R., S. Sumner, R. Williams, M. Pierson, D. Popham, K. Kniel. 2007. Influence of Curli Expression by *Escherichia coli* O157:H7 on the Cells Overall Hydrophobicity, Charge and Ability to Attach to Lettuce. *Journal of Food Protection*.

Chawla, A., J.W. Bell, and **M.E. Janes**. 2007. Optimization of ozonated water treatment of wild-caught and mechanically peeled shrimp meat. *J. Aquatic Food Product Technology*. 16:41-56.

Chen, H. 2007. Temperature-assisted pressure inactivation of *Listeria monocytogenes* in turkey breast meat. *Int. J. Food Micro.* 117:55-60.

Chen, H. 2007. Use of linear, Weibull, and log-logistic functions to model pressure inactivation of seven foodborne pathogens in milk. *Food Micro.* 24:197-204.

Danyluk, M. D., T. M. Jones, S. J. Abd, F. Schlitt-Dittrich, M. Jacobs, and L. J. Harris. 2007. Prevalence and amounts of *Salmonella* found on raw California almonds. *J. Food Prot.*, 70:820-827.

Dawson, P., I. Han, B. Cox, C. Black and L. Simmons. 2006. Residence time and food contact time effects on transfer of *Salmonella* Typhimurium from tile, wood and carpet: Testing the five-second rule. *Journal of Applied Microbiology* (In print).

Dhananjayan, R., I.Y. Han J.C. Acton and P.L. Dawson. 2006. Growth depth effects of bacteria on ground turkey meat patties subjected to high carbon dioxide or high oxygen atmosphere. *Poultry Science* (85:1811-1820).

Dickson, J.S., S. Kozak, E. Lenchenko, O. Scliarov and B. W. Sheldon. 2007. Comparison of Russian and US Official Methods of Analysis of Poultry for Salmonella. *Food Protection Trends* (accepted for publication 20 June 2007).

Du, W.-X., M. D. Danyluk, and L. J. Harris. 2007. Evaluation of cleaning treatments for almond-contact surfaces. *Trends Food Prot.* 9:678-683.

Funk, J, Wittum, T, LeJeune, J., Rajala-Schultz, P., and Mack, A. (2007). Evaluation of stocking density and subtherapeutic chlortetracycline on *Salmonella enterica* subsp. *enterica* shedding in growing swine. *Journal Vet Microbiol* 124:202-208.

Han, F., R.D. Walker, **M.E. Janes**, W. Prinyawiwatkul, and B. Ge. 2007. Antimicrobial susceptibilities of *V. parahaemolyticus* and *V. vulnificus* isolates from Louisiana Gulf and retail raw oysters. *Applied Environ. Micro.* 73:7096-7098.

Hlady, W. G. 1997. *Vibrio* infections associated with raw oyster consumption in Florida, 1981–1994. *J. Food Prot.* 60:353–357.

Hurd, H.S., J. Brudvig, J. Dickson, J. Mirceta, M. Polovinski, N. Matthews, and R Griffith. 2007. Swine health impacts on carcass contamination and human foodborne risk. *Public Health Reports* (submitted 31 May 2007).

Jaykus L, **Wang HH**, Schlesinger L. (eds). 2008. *Foodborne Microbes: Shaping the Host Ecosystems*. ASM Press. Washington DC. (USA), in progress (near completion).

Jijón, S, Wetzel, A, LeJeune, J. (2007) *Salmonella enterica* isolated from Wildlife at two Ohio Rehabilitation Centers. *J of Zoo Wildlife Medicine* 38:409-413.

Joerger, R. D. 2007. Antimicrobial films for food applications: an analysis of quantitative results. *Packaging Technology and Science.* 20:231-273. DOI: 10.1002/pts.774.

Kang D., J. Eifert, R. Williams, S. Pao. 2007. Evaluation of Quantitative Recovery Methods for *Listeria monocytogenes* Applied to Stainless Steel. *Journal of AOAC International.* 90(3):810-816.

Keskinen, L.A., E.C.D. Todd, and E.T. Ryser. 2008. Transfer of surface-dried *Listeria monocytogenes* from stainless steel knife blades to roast turkey breast. *J. Food Prot.* 71(2) (in press)

Kingsley, D.H., Holliman, D., Calci, K., Chen, H., and Flick, G. 2007. Inactivation of a norovirus by high pressure processing. *Appl. Environmental Microbiol.* 73: 581-585.

Kumamoto, K. S., and D. J. Vulich. 1998. Clinical infections of *Vibrio vulnificus*: a case report and review of the literature. *J. Emerg. Med.* 16:61-66.

Kural, A. and Chen, H. 2008. Conditions for a 5-log reduction of *Vibrio vulnificus* in oysters through high hydrostatic pressure treatment. *Int. J. Food Micro.* In press.

Lantz, A. W., Brehm-Stecher, B. F., Armstrong, D. W. Combined Capillary Electrophoresis and DNA-FISH for Rapid Molecular Identification of *Salmonella* Typhimurium in Mixed Culture, invited submission to *Electrophoresis* for special issue on biological detection.

LeJeune, J (2007) The Scapegoat for Vegetable Safety. *Food Protection Trends* 9:728

Malone, A, A. Yousef, and J. LeJeune (2007) Association of Prophage Antiterminator Q Alleles with in vitro processing treatments. *J Food Protect.* 70:2617-9.

Manuzon MY, Hanna SE, Luo H, Harper WJ, **Wang HH**. 2007. Development of a real-time PCR method to quantify antibiotic resistance gene pool in retail dairy products. *Appl Environ Microbiol.* 73:1676-1677.

Michaelsen, A., J.G. Sebranek and J.S. Dickson. 2006. Effects of Microbial Inhibitors Combined with Modified Atmosphere Packaging on Growth of *Listeria monocytogenes* and *Salmonella enterica* Typhimurium and on the Quality Attributes of Injected Pork Chops and Cured, Sliced Ham. *Journal of Food Protection J. Food Protect.* 69:2671-2680.

Mohyla, P., S. Bilgili, O. A. Oyarzabal, C. Warf, and K. Kemp. 2007. Application of acidified sodium chlorite in the drinking water to control *Salmonella* serotype Typhimurium and *Campylobacter jejuni* in commercial broilers. *Journal of Applied Poultry Research* 16:45-51.

Moorman, M., C. Thelemann, J. Pestka, J. Linz and E.T. Ryser. 2007. Altered hydrophobicity and membrane composition in stress-adapted *Listeria innocua*. *J. Food Prot.* 70(12) (in press).

Nagy J.O, Zhang, Y., Yi, Liu, X., Motari, E., Jing Song, C., Lejeune, JT and Wang,G. (2007) Glycopolymers as a chromatic biosensor to detect Shiga-like toxin producing *Escherichia coli* O157:H7, *Bioorg. Med. Chem. Lett.* 18(2):700-3.

Neetoo, H, Ye, M. Chen, H., Joerger, R.D., Hicks, D.T., Hoover. D.G. 2008. Use of nisin-coated plastic films to control *Listeria monocytogenes* on vacuum-packaged cold-smoked salmon. *Int. J. Food Micro.* In press.

Neetoo, H., Ye, M., and Chen, H. 2007. The effectiveness and shelf-life of plastic films coated with nisin for inhibition of *Listeria monocytogenes*. *J. Food Prot.* 70:1267-1271.

Oyarzabal, O. A., S. Backert, M. Nagaraj, R. S. Miller, S. K. Hussain, and E. A. Oyarzabal. 2007. Efficacy of supplemented buffered peptone water for the isolation of *Campylobacter jejuni* and *C. coli* from broiler retail products. *Journal of Microbiological Methods* 69:129-136.

Patton, B.S., J. S. Dickson, S. M. Lonergan, S. A. Cutler, and C. H. Stahl. 2007 Inhibitory activity of Colicin E1 against *Listeria monocytogenes*. *J. Food Protect.* (accepted 29 Jan 2007).

Popa, I., H.J. Hanson, A. Schilder, E.C.D. Todd, and E.T. Ryser. 2007. Efficacy of chlorine dioxide gas sachets for enhancing the microbiological quality and safety of blueberries. *J. Food Prot.* 70:2084-2088.

- Potturi-Venkata, L.-P., S. Backert, S. L. Vieira, and O. A. Oyarzabal. 2007. Evaluation of logistic processing to reduce cross-contamination of commercial broiler carcasses with *Campylobacter* spp. *Journal of Food Protection* 70:2549-2554.
- Potturi-Venkata, L. P., S. Backert, A. J. Lastovica, S. L. Vieira, R. A. Norton, R. S. Miller, S. J. Pierce, and O. A. Oyarzabal. 2007. Evaluation of different plate media for direct cultivation of *Campylobacter* spp. from live broilers. *Poultry Science* 86:1304-1311.
- Rababah, T., N. S. Hettiarachchy, R. Horax, M. J. Cho, B. Davis, and J. Dickson. 2006. Thiobarbituric Acid Reactive Substances and Volatile Compounds in Chicken Breast Meat Infused with Plant Extracts and Subjected to Electron Beam Irradiation. *Poultry Science* 85:1107-1113.
- Rajkowski, K.T., S.E. Niebuhr and J.S. Dickson. 2006. Effect of Gamma or Beta Radiation on Salmonella DT 104 in Ground Pork. *J. Food Protect.* 69:1430–1433.
- Ryser, E.T., E.C.D. Todd, and K.L. Vorst. 2007. Bacterial transfer during slicing of delicatessen meats. *New Food* 10(3):52-56.
- Shepherd, M., P. Liang, M. Doyle, and X. Jiang. 2007. Survival of avirulent *Escherichia coli* O157:H7 during composting on the field. *J. Food Prot.* (in press)
- Singer, R.S., L. A. Cox, Jr. J. S. Dickson, H. S. Hurd, I. Phillips, and G. Y. Miller. 2006. The Relationship between Food Animal Health and Human Foodborne Illness. *Preventive Veterinary Medicine* (accepted 12 Dec 2006).
- Singer, R.S., L. A. Cox, Jr. J. S. Dickson, H. S. Hurd, I. Phillips, and G. Y. Miller. 2007. The Relationship between Food Animal Health and Human Foodborne Illness. *Preventive Veterinary Medicine* 79:186-203.
- Singh, M., S.M. Simpson, H.R. Mullins and J.S. Dickson. 2006. Thermal tolerance of acid adapted and non-adapted *Escherichia coli* O157:H7 and *Salmonella* in ground beef during storage. *Foodborne Pathogens & Disease* (accepted 15 Sept. 2006).
- Ting, S., Z. Xu, C.T. Wu, **M.E. Janes**, W. Prinyawiwatkul, and H.K. No. Antioxidant activities of different colored sweet bell peppers (*Capsicum annuum* L.) *Journal of Food Science* (In Press).
- Uesugi, A. R., M. D. Danyluk, R. E. Mandrell and L. J. Harris. 2007. Isolation of *Salmonella* Enteritidis PT 30 from a single almond orchard over a 5-year period. *J. Food Prot.* 70: 70:1784-1789.
- Wang HH, Manuzon MY, Lehman M, Wan K, Luo H, Wittum TE, Yousef AE, Bakaletz LO. 2006. Food commensals as a potentially important avenue in transmitting antibiotic resistance genes. *FEMS Microbiol Lett.* 254: 226-231. Erratum in: *FEMS Microbiol Lett.* 2006 Feb;255(2):328.
- Warsow, C.R., A. Orta-Ramirez, B.P. Marks, E.T. Ryser, and A.M. Booren. 2008. Unidirectional penetration of *Salmonella* spp. into marinated whole muscle turkey breast. *J. Food Prot.* 71(2) (in press).

- Wei, D., O. A. Oyarzabal, T-S. Huang, S. B. Shankar Ganesh, S. Sista, and A. L. Simonian. 2007. Development of a surface plasmon resonance biosensor for the identification of *Campylobacter jejuni*. *Journal of Microbiological Methods* 69:78-85.
- Wetzel, A and J. T. LeJeune (2007) Isolation of *Escherichia coli* O157:H7 strains that do not produce Shiga toxin from bovine, avian and environmental sources. *Lett Appl. Micro* 45:504-507
- Wetzel, A and LeJeune J. (2007) Preharvest control of *Escherichia coli* O157 in cattle. *J Animal Sci.* 85(13 Suppl):E73-80
- Whitney B., R. Williams, J. Eifert, J. Marcy. 2007. High pressure resistance variation of *Escherichia coli* O157:H7 strains and *Salmonella* serovars in tryptic soy broth, distilled water and fruit juice. *Journal of Food Protection.* 70 (9):2078-2083.
- Xu, S., T. P. Labuza, and F. Diez-Gonzalez. 2008. Comparison of primary predictive models to study the growth of *Listeria monocytogenes* at low-temperatures in liquid cultures and selection of fastest growing ribotypes in meat and turkey. *Food Microbiol.* (in press).
- Yan, Z., K.L. Vorst, L. Zhang, and E.T. Ryser. 2007. Use of 1-ply composite tissues in an optical automated assay for recovery of *Listeria* from food contact surfaces and poultry- processing environments. *J. Food Prot.* 70:1263-1266.
- Yang, H., L. Qu, Y. Lin, Y. Sun, and X. Jiang. 2007. Detection of *Listeria monocytogenes* in biofilms using immunonanoparticles. *J. Biomed. Nanotech.* 3:131-138
- Yang, H., L. Qu, A.Wimbrow, X. Jiang and Y.-P. Sun. 2007. Enhancing antimicrobial activity of lysozyme against *Listeria monocytogenes* using immunonanoparticles. *J. Food Prot.* 70:1844-1849.
- Yang, H., L. Qu, A.N. Wimbrow, Y. Sun, and X. Jiang. 2007. Rapid detection of *Listeria monocytogenes* by nanoparticle-based immunomagnetic separation and real-time PCR. *Int. J. Food Microbiol.* (in press)
- Ye, M., Neetoo, H., and Chen, H. 2008. Control of *Listeria monocytogenes* on ham steaks by antimicrobials incorporated into chitosan-coated plastic films. *Food Micro.* 25: 260–268.
- Zhang, L., Z. Yan, A. Draughon, and E.T. Ryser 2007. Impact of dilution ratios on *Listeria monocytogenes* growth during UVM enrichment of deli meats. *J. Food Prot.* 70(12) (in press).
- Zhang, Y and LeJeune, J (2007) Transduction of bla(CMY-2), tet(A), and tet(B) from *Salmonella enterica* subspecies *enterica* serovar Heidelberg to *S. Typhimurium*. *Vet Microbiol.* 2007 Dec 4 [Epub ahead of print]

## Abstracts

Abd, S.J., W.-X. Du, and L.J. Harris. 2007 Effect of storage time and temperature on the heat resistance of *Salmonella* Enteritidis PT 30 on almonds exposed to hot oil. International Association for Food Protection, Orlando, FL (Abstract PI-53).

Bisha, B. & B.F. Brehm-Stecher. "Molecular detection of *Salmonella* spp. in seed sprouts via flow cytometry", American Society for Microbiology General Meeting, Orlando, FL, June, 2006.

Bisha, B. & B.F. Brehm-Stecher. "Evaluation of sample preparation methods for use in cytometric detection of foodborne pathogens", Food Safety Consortium Annual Meeting, Fayetteville, AR, October 1-3, 2006.

Bisha, B & B.F. Brehm-Stecher. "Rapid Detection of *Salmonella* spp. in Seed Sprouts via Flow Cytometry", FreshTech 2007 meeting, Palm Springs, CA, April 25-28, 2007.

Bisha, B. & B.F. Brehm-Stecher. "Rapid cytometric detection of *Salmonella* and *Listeria monocytogenes* in pork products", American Society for Microbiology General Meeting, Toronto, Canada, May, 2007.

Brehm-Stecher, B.F., Lantz, A. & D. W. Armstrong. "Combined capillary electrophoresis and PNA-FISH for rapid separation and molecular identification of bacteria", American Society for Microbiology General Meeting, Orlando, FL, June, 2006.

Brudvig, J. H.S. Hurd, J. Dickson, R. Griffiths, J. Mirceta, M. Polovinski, J.N. Matthews. 2007. The Effect of Herd Health on Microbial Contamination of Swine Carcasses at Processing and Potential Implications to Human Health. American Association of Veterinary Medicine and the Association of Schools of Public Health Joint Symposium, 22-24 April 2007, Atlanta GA.

Brudvig J, H.S. Hurd, J. Dickson, J. Mirceta, J. Matthews, and R. Griffith. 2007. The Effect of Herd Health on Microbial Contamination of Swine Carcasses at Processing and Potential Implications to Human Health. American Association of Veterinary Medical Colleges Annual Meeting 13-15 July 2007. Washington DC.

Cabrera-Diaz, E., T.M. Musquiz, L.M. Lucia, J.S. Dickson and G.R. Acuff. 2006. Evaluation of fluorescent-marked nonpathogenic *Escherichia coli* strains for use as surrogates for enteric pathogens. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006,

Callaway, J. R., and L. Goodridge. 2007. A Vertically Integrated Colorimetric Rapid Detection Test for *Listeria monocytogenes*. International Association for Food Protection, 94 Annual Meeting, Lake Buena Vista, Florida. July 8-11. Abstract P4-33. Calgary, AB.

Crane, E., B. Ballieu, K. Horm, H. Johnson, A. Spokowski, J. Trevino, R. Yost, P. Dawson. 2006. The Effect of Cleaning on Survival of *E. coli* on Common Food Preparation Surfaces. Institute of Food Technologists Meeting in Orlando, FL. 6/2006.

- Crane, E., B. Ballieu, K. Horm, H. Johnson, A. Spokowski, J. Trevino, R. Yost, P. Dawson. 2006. The Effect of Cleaning on Survival of *E. coli* on Common Food Preparation Surfaces Focus on Creative Inquiry, April 2006, Clemson University.
- Datta, S., M. E. Janes, Q-G. Xue, J. Losso, and J. F. La peyre 2007. Control of *Listeria monocytogenes* and *Salmonella anatum* on the Surface of Smoked Salmon Coated with Calcium Alginate Coating containing Oyster Lysozyme and Nisin. (accepted).
- Dawson, P.L, Lina Ramirez-Lopez, and Inyee Han,. Thermal Process Preliminary Calculations: Enumeration of Thermally Resistant Bacteria in Raw Rendering Materials, Animal Co-Products Research Conference, Clemson University 4/2006.
- Dutta, V., G.R. Huff, R.J. Sayler, W.E. Huff, N.C. Rath, M.G. Johnson, and R. Nannapaneni. 2007. The effects of stress and concurrent *E coli* infection on the isolation of *L. monocytogenes* from synovial tissue of turkey poult. Abstract Amer. Soc. for Microbiology Annual General Mtg. Toronto, Ontario, CANADA, May 21-25, 2007.
- Hall, N.O., B.P. Marks, E.T. Ryser, A.M. Booren, L.A. Keskinen, Z. Yan, and A. Orta-Ramirez. 2007. Quantitative transfer of *Escherichia coli* O157:H7 between beef and equipment surfaces. Abst. Ann Mtg. Inst. Food Technol., Chicago, IL.
- Hurd H.S., J. Brudvig, J. Dickson, S. Malladi, J. Mirceta, M. Polovinski, B.S. Patton, J. Matthews, W. Cast, M. Kocher and R. Griffith. 2006. The Effect of Herd Health on Microbial Contamination of Swine Carcasses at Processing. Conference of Research Workers in Animal Diseases. Annual Meeting 3-5 Dec 2006. Chicago IL
- Hurd, HS, J. Brudvig, J. Dickson, J. Mirceta, M. Polovinski, J. Matthews, and R. Griffith. 2007. Potential Human Health Implications of Swine Health. SafePork Bi-Annual Meeting, 9-11 May 2007 Verona Italy
- Hurd, H.S., J. Brudvig, J. Dickson, J. Mirceta, M. Polovinski, J. Matthews, and R. Griffith. 2007. Swine health impacts microbial contamination of carcasses at processing and contributes to human health risk. Institute of Food Safety and Security Annual Meeting. 12 Apr 2007. Iowa State University, Ames, IA.
- Jackson, A. and J.S. Dickson. 2006. The enumeration of *Escherichia coli* O157:H7 from ground beef using a re-circulating immuno-magnetic bead separation. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006, Calgary, AB
- Jeong, S., B.P. Marks, E.T. Ryser, and A.M. Booren. 2007. Efficacy of low-energy X-ray for eliminating *Escherichia coli* O157:H7 in ground beef. Abst. Ann Mtg. Inst. Food Technol., Chicago, IL.
- Joongmin, S., B. Harte, E.T. Ryser, and S. Selke. 2007. Evaluation of the microbial inhibition performance of gas type antimicrobials (chlorine dioxide and allyl-isothiocyanate) with Modified Atmosphere Packaging (MAP), and the effect of chlorine dioxide exposure on the physical properties of plastic films. 5<sup>th</sup> International Packaging Congress, Izmir, Turkey, November 22-24.

- Kinkelarr D, **Wang HH**. 2007. Antibiotic resistance development in human oral and gut ecosystems. The Center for Microbial Interface Biology Retreat. Abstract #45.
- Kinley, B., A. Leland, and X. Jiang. 2007. Microbiological analysis of U.S. currency collected from food service. Abs. 94<sup>th</sup> Annu. Mtg. Intern. Assoc. Food Prot., Lake Buena Vista, FL., July 8-11.
- Kozak, C.C., J.S. Dickson, B.W. Sheldon, E. Lenchenko, and O. Scliarov . 2007. Comparison of Russian and US Official Methods of Analysis of Poultry for Salmonella. International Veterinary Poultry Congress, 10 – 13 April 2007, Moscow. (in Russian).
- Kudra, L.L., **J.G. Sebranek**, J.S. Dickson, A.F. Mendonca, K.J. Prusa, E. Larson, and J.C.Cordray. 2007. Control of *Listeria monocytogenes* on pre-cooked pork chops by irradiation combined with modified atmosphere packaging. Reciprocal Meat Conference. Brookings, SD. (June, 2007). Abstract no. 49, p. 28.
- Kudra, L.L., **J.G. Sebranek**, J.S. Dickson, A.F. Mendonca, Q. Zhang and K.J. Prusa. 2007. Control of *Campylobacter jejuni* in chicken breast meat by irradiation in vacuum or high CO<sub>2</sub> atmosphere. International Congress of Meat Science and Technology. Beijing, China (August, 2007).
- Kudra, L.L., **J.G. Sebranek**, J.S. Dickson and A.F. Mendonca. 2007. Control of *Escherichia coli* O157:H7 in ground beef patties with irradiation and modified atmosphere packaging. Institute of Food Technologists Annual Meeting, Chicago, IL. (July, 2007).
- Lehman M, **Wang HH**. 2006. Prevalence of antibiotic resistant bacteria in ready-to-eat foods. IFT annual meeting. Abstract#020B-05.
- Lehman M, Xinhui Li, **Wang HH**. 2007. Prevalence of antibiotic resistant commensal bacteria in seafood and ready-to-eat salads. The Center for Microbial Interface Biology Retreat. Abstract #44.
- Lungu, B. R. Story, S.C. Ricke and M.G. Johnson. 2007. The role of protein synthesis in the starvation survival responses of *L. monocytogenes* 10403S and **ΔsigB** mutant. Abstract Amer. Soc. for Microbiology Annual General Mtg. Toronto, Ontario, CANADA, May 21-25, 2007.
- Mangalassary, S., Inyee Han, and Paul Dawson. Carry-over effect of nisin in antimicrobial treatment of ready-to-eat meat. Institute of Food Technologists Meeting in Orlando, FL. 6/2006.
- Manuzon MY, Hanna SE, Luo H, **Wang HH**. 2006. Development of a real-time PCR method to quantify antibiotic resistance gene pool in retail dairy products. ASM general meeting. Abstract#P065.
- Mathusa, E. S. Sumner, R. Williams and J. Marcy. 2007. Elimination of *Listeria monocytogenes* in a soft cheese, fromage blanc, using natural processing methods and formulation changes. IAFP Annual Meeting Abstract Book. P.98.



McKinney, J., R. Williams, G. Boardman, J. Eifert and S. Sumner. 2007. Ultraviolet light dose required to inactivate *Listeria monocytogenes* in water and brine. IAFP Annual Meeting Abstract Book. P.152.

Miles, J. M.\*, S. S. Sumner, R. C. Williams, J. G. Latimer and R. R. Boyer. 2007. Observing *Salmonella* internalization from contaminated seed and irrigation water in greenhouse tomatoes. IAFP Annual Meeting Abstract Book. P.128-129.

Min, B.J., I.Y. Han and P.L. Dawson. Effects of antimicrobial edible films against *Listeria monocytogenes* in a liquid and solid system. Institute of Food Technologists Meeting in Orlando, FL. 6/2006/

Min, S. T.R. Rumsey, L.J. Harris, J.M. Krochta. 2007. Prediction of *Listeria monocytogenes* safe storage time for smoked salmon coated with a whey protein film incorporating lysozyme. Institute for Food Technologists, Chicago, IL. (Abstract 143-13).

Musquiz, T. M., L. M. Lucia, E. Cabrera-Diaz, J. S. Dickson, G. R. Acuff . 2006. Use of Fluorescent Surrogate Organisms for Enteric Pathogens in Validation of Carcass Decontamination Treatments. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006, Calgary, AB.

Parikh, P., R. Williams, J. Marcy, J. Eifert, K. Mallikarjunan. 2007. Ultraviolet light and dimethyl dicarbonate to reduce *Listeria monocytogenes* in chill brine. IAFP Annual Meeting Abstract Book. P.105.

Patton, B.S., C. Stahl and J.S. Dickson. 2007. On the role of Colicin E1 against gram-positive bacteria. International Association for Food Protection Annual Meeting. Orlando FL 7 – 11 July 2007.

Patton, B.S., J.S. Dickson and C.H. Stahl. 2006. Inhibitory activity of Colicin E1 against *Listeria monocytogenes* American Society for Microbiology Annual Meeting, 21-25 May 2006. Orlando FL.

Patton, B.S., W. R. Cast, M. E. Kocher, J. O. Matthews, R. W. Griffith, H. S. Hurd and J. S. Dickson. 2006. The effect of swine production system on bacterial prevalence and antibiotic resistance. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006, Calgary, AB.

Price, S.B., H. Toro, F.J. Hoerr, and S.R. McKee. Combined interventions for reducing cecal colonization of *Salmonella* in chickens. Phi Zeta Research Emphasis Day, College of Veterinary Medicine, Auburn University, November, 2006.

Price, S.B., H. Toro, F.J. Hoerr, and S.R. McKee. Combined interventions for reducing cecal colonization of *Salmonella* in chickens. World Veterinary Poultry Association Congress, Beijing, China, September, 2007.

Rheinhardt, C. J. Eifert, M. Jahncke and S. Sumner. 2007. Spoilage and shelf life of refrigerated reduced oxygen packaged Atlantic Croaker. IAFP Annual Meeting Abstract Book. P.91

Ryser, E.T., Z. Yan, K.L. Vorst, L.A. Keskinen, E.C.D. Todd, and L.-A. Jaykus. 2007. The quantitative transfer of *Listeria monocytogenes* during slicing of ready-to-eat meats: A risk assessment. Second International Symposium on Agricultural Food Safety, Hangzhou, China, November 22-24.

Ryser, E.T., E.C.D. Todd, K.L. Vorst, and L.A. Keskinen. 2007. Quantitative transfer of *Listeria monocytogenes* during slicing of delicatessen products. 16<sup>th</sup> International Symposium on Problems of Listeriosis, Savannah, GA, March 21-23.

Saldivar, J.C., B. Lungu, V..I. Chalova, S.C. Ricke, and M.G. Johnson. 2007 Isolation and characterization of *L. monocytogenes* 10403S mutant strains showing impaired growth at 4 C compared to wild type strain 10403S. Abstract Amer. Soc. for Microbiology Annual General Mtg. Toronto, Ontario, CANADA, May 21-25, 2007.

Shepherd, M.W. Jr., P. Liang, X. Jiang, M.P. Doyle, and M. Erickson. 2007. Inactivation of *Salmonella* and *Listeria* in dairy manure-based compost. Abs. 94<sup>th</sup> Annu. Mtg. Intern. Assoc. Food Prot., Lake Buena Vista, FL., July 8-11.

Singh, M. and J.S. Dickson. 2006. Effects of acid adaptation on thermal tolerance of *Escherichia coli* O157:H7 and *Salmonella* in ground beef. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006, Calgary, AB.

Singh, M. and J.S. Dickson. 2007. Pathogenicity of acid adapted *Escherichia coli* O157:H7 in laboratory media and meat serum. International Association for Food Protection Annual Meeting. Orlando FL 7 – 11 July 2007.

Singh, M. and J.S. Dickson. 2007. Effect of Acid Adaptation on thermal tolerance of *Escherichia coli* O157:H7 and *Salmonella enterica* in Meat Serum. International Association for Food Protection Annual Meeting. Orlando FL 7 – 11 July 2007.

Singh, M. and J.S. Dickson. 2006. Effects of acid adaptation on thermal tolerance of *Escherichia coli* O157:H7 and *Salmonella* in ground beef. International Association for Food Protection Annual Meeting, 13-16 Aug. 2006, Calgary, AB.

Todd, E.C.D., E.T. Ryser. K.L. Vorst, and L.A. Keskinen. 2007. Predictive modeling of *Listeria monocytogenes* transfer during slicing of ready-to-eat deli meats. 16<sup>th</sup> International Symposium on Problems of Listeriosis, Savannah, GA, March 21-23.

**Wang HH**, McKay LL. 2006. Horizontal gene transfer as an important mechanism facilitating biofilm ecosystem development by *Lactococcus lactis*. ASM streptococcal genetics meeting. Abstract#236.

Wu, A., **M.E. Janes**, A. Chawla, J. Bell and Lee-Ann Jaykus. 2007. Survival of *Vibrio parahaemolyticus* at Refrigeration Temperature Using Different Temperature Treatments. IFT meeting in Chicago Il.

Yan, Z., L. Zhang, E.T. Ryser and E.C.D. Todd. 2007. Implementation, validation, and development of novel food microbial testing technologies for enhancing food safety. Second International Symposium on Agricultural Food Safety, Hangzhou, China, November 22-24.

Yan, Z., E.C.D. Todd, and E.T. Ryser. 2007. Impact of product temperature on quantitative transfer of *Listeria monocytogenes* during commercial slicing of ham. Abst. Ann. Mtg. Int. Assoc. Food Prot., Orlando, FL

Zhang, L., E.C.D. Todd, and E.T. Ryser. 2007. Growth of *Listeria monocytogenes* in delicatessen meats based on product formulation and shelf-life dating. Abst. Ann. Mtg. Int. Assoc. Food Prot., Orlando, FL

## **Book Chapters & Books**

Brehm-Stecher, B.F. and E.A. Johnson. 2007. "Rapid Detection of *Listeria*" (invited chapter for E. Marth and E. Ryser (ed.) *Listeria, Listeriosis and Food Safety*, 3<sup>rd</sup> edition, Marcel Dekker, New York

Brehm-Stecher, B.F. "New Technologies for Imaging Individual Microbial Cells" (invited chapter for F. Frischknecht, J. Pawley and S. Shorte, (ed.) *Imaging Cellular & Molecular Biological Function* Springer-Verlag, Berlin, *in press*)

Brehm-Stecher, B.F. "Methods for Whole Cell Detection of Microorganisms" (invited chapter for T. Camesano and C. Mello (ed.) *Structure, Interaction and Reactivity at Microbial Surfaces*, American Chemical Society, Washington, D.C., *in press*)

Danyluk, M. D., L. J. Harris, and W. H. Sperber. 2007. Chapter 9. Nuts and Cereals. In: M. P. Doyle, and L. R. Beuchat (ed.). *Food Microbiology: Fundamentals and Frontiers*, 3<sup>rd</sup> ed., American Society for Microbiology Press.

Ryser, E.T., and E.H. Marth (eds.). 2007. *Listeria, Listeriosis and Food Safety*, 3rd ed., Taylor & Francis, Boca Raton, FL.

## **Invited Lectures**

Brehm-Stecher, B.F. 2007. Biomimetic Polymer-Based Antimicrobial Systems. American Chemical Society Annual Meeting, Boston, MA, August 22<sup>nd</sup>, 2007.

Brehm-Stecher, B.F. 2007. Rapid Detection of Foodborne Pathogens. NATO workshop "Food Safety and Security: Global Holistic Approaches for the Future and Environmental Impacts", Galati, Romania, September 4-6, 2007.

Dawson, P.L. 2007. Poultry Products in the PRW. World Food Logistics Organization annual meeting. Orlando, FL. April.

Goodridge, L. D. 2008. Simultaneous Water Quality Monitoring and Fecal Pollution Source Tracking in the Big Thompson Watershed. Colorado Water Congress, 50<sup>th</sup> Annual Convention, Denver, Colorado, January 23-25.

Goodridge, L. D. 2008. Rapid Isolation of Viruses from Water with the Use of Anionic Exchange Resins. Twenty Second International Forum Process Analytical Technology, Baltimore Maryland, January 27-30. Presentation O-048/1-189.

Hall, N.O., B.P. Marks, E.T. Ryser, A.M. Booren, L.A. Keskinen, Z. Yan, and A. Orta-Ramirez. 2007. Quantitative transfer of *Escherichia coli* O157:H7 between beef and equipment surfaces. Ann Mtg. Inst. Food Technol., Chicago, IL.

Jeong, S., B.P. Marks, E.T. Ryser, and A.M. Booren. 2007. Efficacy of low-energy X-ray for eliminating *Escherichia coli* O157:H7 in ground beef. Ann Mtg. Inst. Food Technol., Chicago, IL.

Jiang, X.P. Food Safety research from Farm to Table. Invited lecture for Chinese Academy of Fishery Sciences, Beijing, Sept. 11, 2007.

Jiang, X.P. Preharvest Food Safety. China International Food Safety and Quality: Conference +Exhibition, Beijing, Sept. 12-13, 2007.

Joongmin, S., B. Harte, E.T. Ryser, and S. Selke. 2007. Evaluation of the microbial inhibition performance of gas type antimicrobials (chlorine dioxide and allyl-isothiocyanate) with Modified Atmosphere Packaging (MAP), and the effect of chlorine dioxide exposure on the physical properties of plastic films. 5<sup>th</sup> International Packaging Congress, Izmir, Turkey, November 22-24.

Ryser, E.T., Z. Yan, K.L. Vorst, L.A. Keskinen, E.C.D. Todd, and L.-A. Jaykus 2007. The quantitative transfer of *Listeria monocytogenes* during slicing of ready-to-eat meats: A risk assessment Second International Symposium on Agricultural Food Safety, Hangzhou, China, November 27 – 29.

Ryser, E.T. 2007. Multidirectional transfer of *E. coli* O157:H7 during processing of leafy greens. Workshop on the safety of leafy greens – National Center for Food Safety and Technology, Oak Lawn, IL October 23.

Ryser, E.T. 2007. *Listeria monocytogenes* contamination of deli meat slicers: Risk and communication. Impacting *Listeria monocytogenes* Control in Manufacturing and Retail - A Symposium for the National Restaurant Association Quality Assurance Executive Study Group, Rodgers, AR, October 16.

Ryser, E.T. 2007. *Listeria* transfer during manufacture and retail slicing of deli meats. Michigan Environmental Health Association – Joint Ground Water and Food Protection Conference, Lansing, MI October 11.

Ryser, E.T. 2007. New and novel approaches for environmental sampling. Workshop I: Environmental Sampling of Food and Water – Wet Lab, Ann. Mtg. Int. Assoc. Food Prot., Orlando, FL

Ryser, E.T., E.C.D. Todd, K.L. Vorst, and L.A. Keskinen. 2007. Quantitative transfer of *Listeria monocytogenes* during slicing of delicatessen products. 16<sup>th</sup> International Symposium on Problems of Listeriosis, Savannah, GA, March 21-23.

Todd, E.C.D., E.T. Ryser, K.L. Vorst, and L.A. Keskinen. 2007. Predictive modeling of *Listeria monocytogenes* transfer during slicing of ready-to-eat deli meats. 16<sup>th</sup> International Symposium on Problems of Listeriosis, Savannah, GA, March 21-23.

**Wang HH.** 2007. Antibiotic resistant commensals in the food chain and potential impacts. ASM general meeting. Session #106-01. (Invited speaker).

**Wang HH.** 2007. Antibiotic resistant commensals in the food chain and potential impacts. IFT annual meeting. Session #123P. (Invited speaker).

Yan, Z., L. Zhang, E.T. Ryser and E.C.D. Todd. 2007. Implementation, validation, and development of novel food microbial testing technologies for enhancing food safety. Second International Symposium on Agricultural Food Safety, Hangzhou, China, November 22-24.

Yan, Z., E.C.D. Todd, and E.T. Ryser. 2007. Impact of product temperature on quantitative transfer of *Listeria monocytogenes* during commercial slicing of ham. Ann. Mtg. Int. Assoc. Food Prot., Orlando, FL

Zhang, L., E.C.D. Todd, and E.T. Ryser. 2007. Growth of *Listeria monocytogenes* in delicatessen meats based on product formulation and shelf-life dating. Ann. Mtg. Int. Assoc. Food Prot., Orlando, FL.

## **General Interest Publications**

Dawson, P.L. Research Review. Meat Processing. Watt Publishing. March, 2007

Dawson, P.L. Research Review. Meat Processing. Watt Publishing, July, 2007

Dawson, P.L. Research Review, Poultry USA Watt Publishing, October, 2007.

Ge, B., **M.E. Janes**, R. Senevirathne. 2007. Developing rapid and sensitive pathogen detection systems for food safety and biosecurity. Louisiana Agricultural Magazine.

Joerger, RD, Sabesan, S, Visioli, D, Urian, D, Joerger, MC. 2008. Antimicrobial Activity of Chitosan Covalently Attached to Ethylene Copolymer Films. Submitted for publication.

Lungu, Bwalya. 2007 Ph.D. dissertation . Physiological and molecular characterization of the response of *Listeria monocytogenes* 10403S and Sig B mutant strain following exposure to various external stresses. U of Arkansas, Fayetteville, AR . December 2007.

Saldivar, J.C. 2007 M.S. Thesis. Cold-Temperature Growth and Virulence of *Listeria monocytogenes* wild type and transposon- induced mutant strains. U of Arkansas, Fayetteville, AR August 2007

Yada, S., and L. J. Harris. July 2007. Olives: Safe methods for home pickling. University of California, Division of Agriculture and Natural Resources, Publication 8267.

**Grants Received**  
**2007 Annual Report**  
**S-1033**

**Stuart Price, Alabama:**

“Control of *Salmonella* in Infected Chickens by Combining Application of Bacteriophages, Competitive Exclusion, and Maternal Immunity.” United States Department of Agriculture National Research Initiative Competitive Grant #2006-01273. Principal Investigator: Stuart B. Price; Co-investigators: Haroldo Toro, Shelly McKee, and Fred Hoerr. 9/15/06 – 9/14/09. \$298,271.

“Novel Approaches for Reducing Shedding of *Salmonella* from Chickens.” Animal Health and Disease Research Program, College of Veterinary Medicine, Auburn University. Principal Investigator: Stuart B. Price; Co-investigator, Haroldo Toro. 10/1/05-9/30/07. \$36,319.

**Marlene Janes, Louisiana:**

Louisiana Sea Grant College Program “A Bacteriophage Linked Immunosorbent Assay (BALISA) for Rapid Detection of Pathogenic *Vibrio parahaemolyticus*” Lawrence Goodridge, Marlene Janes, and Janet Simonson; Oct 2007/ Sept. 2009, \$89,227 (LSU Ag Center portion).

Louisiana Sea Grant College Program, “Identification and enumeration of *Vibrio vulnificus* by immunomagnetic separation and real-time PCR” June 2007/July 2009, **Pending** for \$143,325.

**Lead PI** – Marlene Janes, **Co – PI’s** Janet Simonson.

USDA Aquaculture Special Grant, “Microbial Drug Resistance in *Vibrio spp.* from Oysters.” September 2006/October 2007, **Funded** for \$24,000. **Lead PI** – Beilei Ge, **Co – PI’s** Marlene Janes, Witoon Prinyawiwatkul.

Integrated Research, Education, and Extension Competitive Grants Program – National Integrated Food Safety Initiative “Identifying Risk Factors and Developing Educational Strategies to Ameliorate Food borne Diseases in Rural Mississippi” June 2006/July 2008, **Funded** for \$100,000 **Lead PI** – Njiti, Victor, Besong, **Co – PI’s** Samuel Ezekwe, Michael, Alipoe, Dovi, Ezekwe, Edith, Santell, Ross, Marlene, Janes, and Ge, Beilei.

NRI Competitive grants program – USDA CSREES, “Ecology and control of pathogenic strains of *Vibrio vulnificus* and *Vibrio parahaemolyticus* in U.S. Gulf Coast oysters” October 2004/September 2007, **Funded** for \$415,504. **Lead PI** – Lee-Ann Jaykus, **Co – PI’s** Andy De Paola, Marlene Janes, Jon Bell, and John Supan.