

# Douglas L. Marshall, Ph.D.

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**Position** Associate Dean & Professor of Public Health  
College of Natural & Health Sciences  
University of Northern Colorado  
Greeley, CO 80639 USA

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Fort Collins, CO 80528 USA

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**Education** 1989  
Ph.D.  
University of Florida  
Food Science & Human Nutrition

1985  
M.S.  
University of Nebraska  
Food Science & Technology

1982  
B.S.  
University of Nebraska  
Life Sciences (microbiology)

## Professional Experience

2008-present  
Colorado School of Public Health  
Department of Environmental and Occupational Health  
Adjunct Professor

2007-present  
University of Northern Colorado  
College of Natural & Health Sciences  
Associate Dean

2007-present  
University of Northern Colorado  
School of Human Sciences  
Professor

2007

National Alliance for Food Safety and Security  
Center for Detection Technology  
Associate Director

2004-2007

Mississippi State University, Mississippi State, MS  
Department of Food Science, Nutrition & Health Promotion  
Professor

2001-2007

*Food Microbiology*, Elsevier Science, London, UK  
Contributing Editor

2000-2004

Mississippi State University, Mississippi State, MS  
Department of Food Science & Technology  
Professor

2000-2007

Mississippi State University, Mississippi State, MS  
Department of Biological Sciences  
Courtesy Professor

1996-present

Food Safety Institute, LLC, Baton Rouge, LA  
President & Director

1996-2000

Mississippi State University, Mississippi State, MS  
Department of Biological Sciences  
Courtesy Associate Professor

1995-2000

Mississippi State University, Mississippi State, MS  
Department of Food Science & Technology  
Associate Professor

1990-present

Marshall Consulting Services, Fort Collins, CO  
President

1989-1994

Louisiana State University, Baton Rouge, LA  
Department of Food Science  
Assistant Professor

1985-1989  
 University of Florida, Gainesville, FL  
 Food Science & Human Nutrition Department  
 Research Assistant

1983-1985  
 University of Nebraska, Lincoln, NE  
 Department of Food Science & Technology  
 Research Assistant

1982-1983  
 University of Nebraska, Lincoln, NE  
 School of Life Sciences  
 Teaching Assistant

1982  
 Seagal, Commercial Fishing Boat, Whittier & Seward, AK  
 Deck Hand

**Area of  
 Specialization** Public Health Microbiology

**Research  
 Areas/Interests** Goal to improve quality and safety of foods

Investigation of antibiotic and phage resistance in foodborne pathogens.

Multibarrier strategy development for minimally processed foods.

Improving methods for analyzing efficacies of antimicrobial treatments.

Evaluation of the microbial quality and safety of food processing byproducts.

Development of rapid impedance-based and molecular biology-based methods for food quality and safety evaluation.

Characterization and control of food processing plant biofilms.

Assessing the impact of new generation processing techniques on growth and survival of pathogenic bacteria in foods.

Evaluation and application of novel antimicrobial agents as food preservatives or sanitizers.

Development of an alternative bread preservation method for developing countries.

Modeling environmental effects on microbial populations.

Understanding the molecular basis of microbe-microbe interactions in foods and the environment.

## Publications

\* indicates supervised

student, post-doc, or  
technician

Juried:

Books:

Marshall, D.L. and A.C. Stockwell. 1999. *New Software Tools for Product Applications*. Institute of Food Technologists, Chicago, IL, 171 p.

Marshall, D.L. 2004. *Best Practices for Safe and High Quality Aquaculture Products*. International Association for Food Protection, Des Moines IA, 89 p.

Hui, Y.H., E. Castell-Perez, L.M. Cunha, I. Guerrero Legarreta, H.H. Liang, Y.M. Lo, D.L. Marshall, W.K. Nip, F. Shadidi, F. Sherkat, R.J. Winger, and K.L. Yam. 2006. *Handbook of Food Science, Technology and Engineering, 4 Volume Set*. CRC Press, Taylor & Francis Group, Boca Raton, FL, 3632 p.

Bak Christensen, B., E. Ebel, K. Egan, A. Fazil, N. French, D. Gelli, L. Gorris, E. Hartnett, A. Hogue, I. Karunasagar, F. Kasuga, L. Kelly, X. Liu, D. Marshall, G. Nasinyama, M. Nauta, B. Norrung, K. Osaka, T. Ross, D. Schaffner, W. Schlosser, P. Vanderlinde, R. Whiting, M. Wooldridge. 2008. *Exposure Assessment of Microbiological Hazards in Food: Guidelines*. World Health Organization and Food and Agriculture Organization of the United Nations Microbiological Risk Assessment Series 7, 92 p.

Book Chapters:

Wiese-Lehigh\*, P.L. and D.L. Marshall. 1993. Determination of seafood freshness using impedance technology. In *Food Flavor & Safety: Molecular Analysis and Design*. A.M. Spanier, H. Okai, and M. Tamura (Eds.). ACS Symposium Series No. 528, American Chemical Society, Washington, D.C., Chapter 20, pp. 248-261.

Marshall, D.L. and L.B. Bullerman. 1994. Antimicrobial properties of sucrose fatty acid esters. In *Carbohydrate Polyesters as Fat Substitutes*. C.C. Akoh and B.G. Swanson (Eds.). Marcel Dekker, Inc., New York, Chapter 8, pp. 149-167.

Marshall, D.L. and J.S. Dickson. 1998. Ensuring food safety. In *Maxcy-Rosenau-Last Public Health and Preventive Medicine, 14<sup>th</sup> Ed.* R.B. Wallace (Ed.). Appleton & Lange, Norwalk, CT, Chapter 36, pp. 725-738.

Cotton\*, L.N. and D.L. Marshall. 1998. Rapid impedimetric method to determine crustacean food freshness. In *New Techniques in the Analysis of Foods*. M.H. Tunick, S.A. Palumbo, and P.M. Fratamico (Eds.). Plenum

Publishing Corp., New York, Chapter 13, pp. 147-160.

Marshall, D.L. 1999. Rapid impedance methods for seafood. In ***Handbook for Rapid Methods and Automation in Microbiology Workshop***. D.Y.C. Fung (Ed.). Kansas State University, Manhattan, KS, Section C, Chapter 11, pp. 109-121.

Marshall, D.L. and F.A. Bal'a. 1999. Introduction: Internet and software basics. In ***New Software Tools for Product Applications***. D.L. Marshall and A.C. Stockwell (Eds.). Institute of Food Technologists, Chicago, IL, Chapter 1, pp. 1-16.

Bal'a\*, F.A. and D.L. Marshall. 1999. Project management tools. In ***New Software Tools for Product Applications***. D.L. Marshall and A.C. Stockwell (Eds.). Institute of Food Technologists, Chicago, IL, Chapter 5, pp. 40-52.

Marshall, D.L. and F.A. Bal'a. 1999. Product safety evaluation tools and regulatory data bases. In ***New Software Tools for Product Applications***. D.L. Marshall and A.C. Stockwell (Eds.). Institute of Food Technologists, Chicago, IL, Chapter 11, pp. 121-133.

Bal'a\*, F.A. and D.L. Marshall. 1999. Software sourcing, evaluation, implementation and update strategies. In ***New Software Tools for Product Applications***. D.L. Marshall and A.C. Stockwell (Eds.). Institute of Food Technologists, Chicago, IL, Chapter 13, pp. 152-161.

Marshall, D.L., L.N. Cotton, and M.F.A. Bal'a. 2000. Acetic acid. In ***Natural Food Antimicrobial Systems***. A.S. Naidu (Ed.). CRC Press, Boca Raton, FL, Chapter 24, pp. 661-688.

Marshall, D.L., L.N. Cotton, and C.F. Fernandes. 2000. Chlorine usage in fish and seafood processing facilities. In ***Use of Chlorine-Based Sanitizers and Disinfectants in the Food Manufacturing Industry***. D.A. McLaren (Ed.). University of Nebraska Food Processing Center, Lincoln, NE, Chapter 3, pp. 27-39.

Marshall, D.L. and M.F.A. Bal'a. 2001. Microbiology of meats. In ***Meat Science and Applications***. Y.H. Hui, W.K. Nip, R.W. Rogers, and O.A. Young (Eds.). Marcel Dekker, Inc., New York, Chapter 7, pp. 149-169.

Jackson, T.C., D.L. Marshall, G.R. Acuff, and J.S. Dickson. 2001. Meat, poultry, and seafood. In ***Food Microbiology: Fundamentals and Frontiers, 2<sup>nd</sup> Ed.*** M.P. Doyle, L.R. Beuchat, and T.J. Montville (Eds.). ASM Press, Washington, D.C., Chapter 5, pp. 91-109.

Bazemore, R., S.G. Fu, Y. Yoon, and D. Marshall. 2003. Major causes of shrimp spoilage and methods for assessment. In ***Off-Flavors in Aquaculture***. A.M. Rimando and K.K. Schrader (Eds.). ACS Symposium Series No. 848,

American Chemical Society, Washington, D.C., Chapter 16, pp. 223-234.

Marshall, D.L. 2004. Processing. In *Biology and Culture of Channel Catfish*. C.S. Tucker and J.A. Hargreaves (Eds.). Elsevier, Amsterdam, Chapter 20, pp. 585-600.

Marshall, D.L. 2004. Control of *Listeria monocytogenes* in ready- to-eat foods. In *Pre-Harvest and Post-Harvest Food Safety: Contemporary Issues and Future Directions*. R.C. Beier, S.D. Pillai, T.D. Phillips, and R.L. Ziprin (Eds.). Institute of Food Technologists and Blackwell Publishing, Ames, IA, Chapter 26, pp. 349-364.

Marshall, D.L. 2004. Finfish: warmwater. In *Best Practices for Safe and High Quality Aquaculture Products*. D.L. Marshall (Ed.). International Association for Food Protection, Des Moines, IA, Chapter 4, pp. 31-69.

Jackson, T.C., D.L. Marshall, G.R. Acuff, J.S. Dickson, J.F. Frank, and R.E. Brackett. 2005. Spoilage organisms. In *Food Microbiology: An Introduction*. T.J. Montville and K.R. Matthews (Eds.). ASM Press, Washington, D.C., Chapter 19, pp. 241-267.

Kabara, J.J. and D.L. Marshall. 2005. Medium-chain fatty acids and esters. In *Antimicrobials in Foods, 3<sup>rd</sup> Ed.* P.M. Davidson, J.N. Sofos, and J.L. Brannen (Eds.). CRC Press, Taylor & Francis Group, Boca Raton, FL, Chapter 11, pp. 327-360.

Dickson, J.S. and D.L. Marshall. 2006. Food microbiology and safety: Basic requirements. In *Handbook of Food Science, Technology and Engineering, 4 Volume Set*. Hui, Y.H., E. Castell-Perez, L.M. Cunha, I. Guerrero Legarreta, H.H. Liang, Y.M. Lo, D.L. Marshall, W.K. Nip, F. Shadidi, F. Sherkat, R.J. Winger, and K.L. Yam (Eds.). CRC Press, Taylor & Francis Group Boca Raton, FL, Volume IV – Food Technology and Food Processing, Chapter 184, pp. 184-1-184-8.

Marshall, D.L. and J.S. Dickson. 2006. Contaminants. In *Handbook of Food Science, Technology and Engineering, 4 Volume Set*. Hui, Y.H., E. Castell-Perez, L.M. Cunha, I. Guerrero Legarreta, H.H. Liang, Y.M. Lo, D.L. Marshall, W.K. Nip, F. Shadidi, F. Sherkat, R.J. Winger, and K.L. Yam (Eds.). CRC Press, Taylor & Francis Group, Boca Raton, FL, Volume IV – Food Technology and Food Processing, Chapter 194, pp. 194-1-194-10.

Duran\*, G.M. and D.L. Marshall. 2006. Cleaning a processing plant. In *Handbook of Food Science, Technology and Engineering, 4 Volume Set*. Hui, Y.H., E. Castell-Perez, L.M. Cunha, I. Guerrero Legarreta, H.H. Liang, Y.M. Lo, D.L. Marshall, W.K. Nip, F. Shadidi, F. Sherkat, R.J. Winger, and K.L. Yam (Eds.). CRC Press, Taylor & Francis Group, Boca Raton, FL, Volume IV – Food Technology and Food Processing, Chapter 196, pp. 196-1-196-7.

Nychas, G.J.E., D.L. Marshall, and J.N. Sofos. 2007. Meat, poultry, and seafood. In *Food Microbiology: Fundamentals and Frontiers, 3<sup>rd</sup> Ed.* M.P. Doyle and L.R. Beuchat (Eds.). ASM Press, Washington, D.C., Chapter 6, pp. 105-140.

Marshall, D.L. and J.S. Dickson. 2007. Ensuring food safety. In *Maxcy-Rosenau-Last Public Health and Preventive Medicine, 15<sup>th</sup> Ed.* R.B. Wallace (Ed.). The McGraw-Hill Companies, Inc., New York, NY, Chapter 47, pp. 847-862.

#### Referred Journal Articles:

Marshall, D.L. and L.B. Bullerman. 1986. Antimicrobial activity of sucrose fatty acid ester emulsifiers. *Journal of Food Science* 51:468-470.

Marshall, D.L. and L.B. Bullerman. 1986. Effect of sucrose esters in combination with selected mold inhibitors on growth and aflatoxin production by *Aspergillus parasiticus*. *Journal of Food Protection* 49:378-382.

Marshall, D.L. and R.H. Schmidt. 1988. Growth of *Listeria monocytogenes* at 10°C in milk preincubated with selected pseudomonads. *Journal of Food Protection* 51:277-282.

Marshall, D.L. and R.H. Schmidt. 1991. Physiological evaluation of stimulated growth of *Listeria monocytogenes* by *Pseudomonas* species in milk. *Canadian Journal of Microbiology* 37:594-599.

Marshall, D.L., P.L. Wiese-Lehigh, J.H. Wells, and A.J. Farr. 1991. Comparative growth of *Listeria monocytogenes* and *Pseudomonas fluorescens* on precooked chicken nuggets stored under modified atmospheres. *Journal of Food Protection* 54:841-843, 851.

Oh\*, D.H., D.L. Marshall, M.W. Moody, and J.D. Bankston. 1992. Comparison of forced-air cooling with static-air cooling on the microbiological quality of cooked blue crabs. *Journal of Food Protection* 55:104-107.

Oh\*, D.H. and D.L. Marshall. 1992. Effect of pH on the minimum inhibitory concentration of monolaurin against *Listeria monocytogenes*. *Journal of Food Protection* 55:449-450.

Zhao\*, Y.Y., J.H. Wells, and D.L. Marshall. 1992. Description of log phase growth for selected microorganisms during modified atmosphere storage. *Journal of Food Process Engineering* 15:299-317.

Marshall, D.L., L.S. Andrews, J.H. Wells, and A.J. Farr. 1992. Influence of modified atmosphere packaging on the competitive growth of *Listeria monocytogenes* and *Pseudomonas fluorescens* on precooked chicken. *Food*

*Microbiology* 9:303-309.

Dorsa \*, W.J., D.L. Marshall, M.W. Moody, and C.R. Hackney. 1993. Low temperature growth and thermal inactivation of *Listeria monocytogenes* in crawfish tail meat. *Journal of Food Protection* 56:106-109.

Fapohunda \*, A.O., K.W. McMillin, D.L. Marshall, and W.M. Waites. 1993. A simple and effective method for obtaining aseptic raw beef tissues. *Journal of Food Protection* 56:543-544.

Han, D., K.W. McMillin, J.S. Godber, T.D. Bidner, M.T. Younathan, D.L. Marshall, and L.T. Hart. 1993. Effect of heat on the distribution of iron and total pigments in beef and chicken muscles. *Journal of Food Science* 58:697-700.

Oh \*, D.H. and D.L. Marshall. 1993. Influence of temperature, pH, and glycerol monolaurate on growth and survival of *Listeria monocytogenes*. *Journal of Food Protection* 56: 744-749.

Odame-Darkwah \*, J.K. and D.L. Marshall. 1993. Interactive behavior of *Saccharomyces cerevisiae*, *Bacillus pumilus* and *Propionibacterium freudenreichii* subsp. *shermanii*. *International Journal of Food Microbiology* 19:259-269.

Dorsa \*, W.J., D.L. Marshall, and M. Semien. 1993. Effect of potassium sorbate and citric acid sprays on growth of *Listeria monocytogenes* on crawfish (*Procambarus clarkii*) tail meat at 4°C. *Food Science and Technology (Lebensmittel-Wissenschaft und Technologie)* 26:480-482.

Oh \*, D.H. and D.L. Marshall. 1993. Antimicrobial activity of ethanol, glycerol monolaurate or lactic acid against *Listeria monocytogenes*. *International Journal of Food Microbiology* 20:239-246.

Fapohunda \*, A.O., K.W. McMillin, D.L. Marshall, and W.M. Waites. 1994. Growth of selected cross-contaminating bacterial isolates on beef and fish at 15 and 35°C. *Journal of Food Protection* 57:337-340.

Marshall, D.L. and J.K. Odame-Darkwah. 1994. Mechanism of inhibited growth of *Bacillus pumilus* by *Propionibacterium freudenreichii* subsp. *shermanii*. *International Journal of Food Microbiology* 22:11-22.

Oh \*, D.H. and D.L. Marshall. 1994. Enhanced inhibition of *Listeria monocytogenes* by glycerol monolaurate with organic acids. *Journal of Food Science* 59:1258-1261.

Kim \*, C.R., J.O. Hearnberger, A.P. Vickery, C.H. White, and D.L. Marshall. 1995. Sodium acetate and bifidobacteria increase shelf-life of refrigerated catfish fillets. *Journal of Food Science* 60:25-27.

- Dorsa<sup>\*</sup>, W.J. and D.L. Marshall. 1995. Influence of lactic acid and modified atmosphere on thermal destruction of *Listeria monocytogenes* in crawfish tail meat homogenate. ***Journal of Food Safety*** 15:1-9.
- Oh<sup>\*</sup>, D.H. and D.L. Marshall. 1995. Influence of packaging method, lactic acid and monolaurin on *Listeria monocytogenes* in crawfish tailmeat homogenate. ***Food Microbiology*** 12:159-163.
- Oh<sup>\*</sup>, D.H. and D.L. Marshall. 1995. Destruction of *Listeria monocytogenes* biofilms on stainless steel using monolaurin and heat. ***Journal of Food Protection*** 58:251-255.
- Marshall, D.L. and J.K. Odame-Darkwah. 1995. Influence of pH and NaCl on growth and survival of *Propionibacterium freudenreichii* subsp. *shermanii*, *Bacillus pumilus*, and *Saccharomyces cerevisiae* in broth media. ***Food Science and Technology (Lebensmittel-Wissenschaft und Technologie)*** 28:222-226.
- Kim<sup>\*</sup>, C.R., J.O. Hearnberger, A.P. Vickery, C.H. White, and D.L. Marshall. 1995. Extending shelf-life of refrigerated catfish fillets using sodium acetate and monopotassium phosphate. ***Journal of Food Protection*** 58:644-647.
- Andrews<sup>\*</sup>, L.S., D.L. Marshall, and R.M. Grodner. 1995. Radiosensitivity of *Listeria monocytogenes* at various temperatures and cell concentrations. ***Journal of Food Protection*** 58:748-751.
- Martin, J.H. and D.L. Marshall. 1995. Characteristics of potential foodborne pathogens in cultured dairy products. ***Cultured Dairy Products Journal*** 30(3):9-12,15-16.
- Oh<sup>\*</sup>, D.H. and D.L. Marshall. 1996. Monolaurin and acetic acid inactivation of *Listeria monocytogenes* attached to stainless steel. ***Journal of Food Protection*** 59:249-252.
- Pothuri<sup>\*</sup>, P., D.L. Marshall, and K.W. McMillin. 1996. Combined effects of packaging atmosphere and lactic acid on growth and survival of *Listeria monocytogenes* in crayfish tail meat at 4°C. ***Journal of Food Protection*** 59:253-256.
- Marshall, D.L. and C.R. Kim. 1996. Microbiological and sensory analyses of refrigerated catfish fillets treated with acetic and lactic acids. ***Journal of Food Quality*** 19:317-329.
- Bal'a<sup>\*</sup>, M.F.A. and D.L. Marshall. 1996. Use of double gradient plates to study combined effects of salt, pH, monolaurin, and temperature on *Listeria monocytogenes*. ***Journal of Food Protection*** 59:601-607.
- Verhaegh<sup>\*</sup>, E.G.A., D.L. Marshall, and D.H. Oh. 1996. Effect of monolaurin

and lactic acid on *Listeria monocytogenes* attached to catfish fillets. ***International Journal of Food Microbiology*** 29:403-410.

Marshall, D.L., J.J. Kim, and S.P. Donnelly. 1996. Antibiotic susceptibility and plasmid mediated streptomycin resistance of *Plesiomonas shigelloides* isolated from Blue crab. ***Journal of Applied Bacteriology*** 81:195-200.

Bal'a<sup>\*</sup>, M.F.A. and D.L. Marshall. 1996. Testing matrix, inoculum size, and incubation temperature affect monolaurin activity against *Listeria monocytogenes*. ***Food Microbiology*** 13:467-473.

Marshall, D.L. and P.L.W. Lehigh. 1997. Comparison of impedance, microbial, sensory, and pH methods to determine shrimp quality. ***Journal of Aquatic Food Product Technology*** 6(2):17-31.

Marshall, D.L. and V. Jindal. 1997. Microbiological quality of catfish frames treated with selected phosphates. ***Journal of Food Protection*** 60:1081-1083.

Cotton<sup>\*</sup>, L.N. and D.L. Marshall. 1997. Monolaurin preparation method affects activity against vegetative cells of *Bacillus cereus*. ***Food Science and Technology (Lebensmittel-Wissenschaft und Technologie)*** 30:830-833.

Suvanich<sup>\*</sup>, V. and D.L. Marshall. 1998. Influence of storage time and temperature on quality of catfish (*Ictalurus punctatus*) frames. ***Journal of Aquatic Food Product Technology*** 7(1):61-76.

Bal'a<sup>\*</sup>, M.F.A., J.D. It, and D.L. Marshall. 1998. Attachment of *Aeromonas hydrophila* to stainless steel surfaces. ***Dairy, Food and Environmental Sanitation*** 18:642-649.

Cotton<sup>\*</sup>, L.N. and D.L. Marshall. 1998. Predominant microflora on catfish processing equipment. ***Dairy, Food and Environmental Sanitation*** 18:650-654.

Bal'a<sup>\*</sup>, M.F.A. and D.L. Marshall. 1998. Organic acid dipping of catfish fillets: Effect on color, microbial load, and *Listeria monocytogenes*. ***Journal of Food Protection*** 61:1470-1474.

Bal'a<sup>\*</sup>, M.F.A., J.D. It, and D.L. Marshall. 1999. Moderate heat or chlorine destroys *Aeromonas hydrophila* biofilms on stainless steel. ***Dairy, Food and Environmental Sanitation*** 19:29-34.

Marshall, D.L., D.N. Domma, and R.M. Grodner. 1999. A potential capacitance detection and enumeration method for *Vibrio cholerae* and *Vibrio vulnificus*. ***Journal of Aquatic Food Product Technology*** 8(1):5-19.

Kim<sup>\*</sup>, C.R. and D.L. Marshall. 1999. Microbiological, colour, and sensory changes of refrigerated chicken legs treated with selected phosphates. ***Food***

*Research International* 32:209-215.

Bal'a<sup>\*</sup>, M.F.A., R. Podolak, and D.L. Marshall. 1999. Steam treatment reduces skin microflora population on deheaded and eviscerated whole catfish. *Food Microbiology* 16:495-501.

Suvanich<sup>\*</sup>, V., M.L. Jahncke, and D.L. Marshall. 2000. Changes in selected chemical quality characteristics of catfish frame mince during chill and frozen storage. *Journal of Food Science* 65:24-29.

Suvanich<sup>\*</sup>, V., D.L. Marshall, and M.L. Jahncke. 2000. Microbiological and color quality changes of channel catfish frame mince during chilled and frozen storage. *Journal of Food Science* 65:151-154.

Kim<sup>\*</sup>, J. and D.L. Marshall. 2000. Lactic acid inactivation of *Salmonella* Typhimurium attached to catfish skin. *Journal of Food Safety* 20:53-64.

Kim<sup>\*</sup>, C.R. and D.L. Marshall. 2000. Quality evaluation of refrigerated chicken wings treated with organic acids. *Journal of Food Quality* 23:327-335.

Koo<sup>\*</sup>, J., A. DePaola, and D.L. Marshall. 2000. Impact of acid on survival of *Vibrio vulnificus* and *Vibrio vulnificus* phage. *Journal of Food Protection* 63:1049-1052.

Bal'a<sup>\*</sup>, M.F.A., R. Podolak, and D.L. Marshall. 2000. Microbial and color quality of fillets obtained from steam-pasteurized deheaded and eviscerated whole catfish. *Food Microbiology* 17:625-631.

Koo<sup>\*</sup>, J., A. DePaola, and D.L. Marshall. 2000. Effect of simulated gastric fluid and bile on survival of *Vibrio vulnificus* and *Vibrio vulnificus* phage. *Journal of Food Protection* 63:1665-1669.

Gooch<sup>\*</sup>, J.A., A. DePaola, C.A. Kaysner, and D.L. Marshall. 2001. Evaluation of two direct plating methods using non-radioactive probes for enumeration of *Vibrio parahaemolyticus* in oysters. *Applied and Environmental Microbiology* 67:721-724.

Koo<sup>\*</sup>, J., D.L. Marshall, and A. DePaola. 2001. Antacid increases survival of *Vibrio vulnificus* and *Vibrio vulnificus* phage in a gastrointestinal model. *Applied and Environmental Microbiology* 67:2895-2902.

Kozempel, M.F., D.L. Marshall, E.R. Radewonuk, O.J. Scullen, N. Goldberg, and M.F.A. Bal'a. 2001. A rapid surface intervention process to kill *Listeria innocua* on catfish using cycles of vacuum and steam. *Journal of Food Science* 66:1012-1016.

Kim<sup>\*</sup>, J. and D.L. Marshall. 2001. Effect of lactic acid on *Listeria monocytogenes* and *Edwardsiella tarda* attached to catfish skin. *Food*

**Microbiology** 18:589-596.

Gooch<sup>\*</sup>, J.A., A. DePaola, J. Bowers, and D.L. Marshall. 2002. Growth and survival of *Vibrio parahaemolyticus* in postharvest American oysters. **Journal of Food Protection** 65:970-974.

Kim<sup>\*</sup>, J. and D.L. Marshall. 2002. Influence of catfish skin mucus on trisodium phosphate inactivation of attached *Salmonella* Typhimurium, *Edwardsiella tarda*, and *Listeria monocytogenes*. **Journal of Food Protection** 65:1146-1151.

Duran<sup>\*</sup>, G.M. and D.L. Marshall. 2002. Rapid determination of sanitizer concentration using impedance-based methods. **Journal of Food Protection** 65:1422–1427.

Trotter<sup>\*</sup>, T.M. and D.L. Marshall. 2003. Influence of pH and NaCl on monolaurin inactivation of *Streptococcus iniae*. **Food Microbiology** 20:187-192.

Yuk<sup>\*</sup>, H.G. and D.L. Marshall. 2003. Heat adaptation alters *Escherichia coli* O157:H7 membrane lipid composition and verotoxin production. **Applied and Environmental Microbiology** 69:5115-5119.

Metcalf<sup>\*</sup>, A.M. and D.L. Marshall. 2004. Capacitance method to determine the microbiological quality of raw shrimp (*Penaeus setiferus*). **Food Microbiology** 21:361-364.

Yuk<sup>\*</sup>, H.G. and D.L. Marshall. 2004. Adaptation of *Escherichia coli* O157:H7 to pH alters membrane lipid composition, verotoxin secretion, and resistance to simulated gastric fluid acid. **Applied and Environmental Microbiology** 70:3500-3505.

Yuk<sup>\*</sup>, H.G. and D.L. Marshall. 2005. Influence of acetic, citric, and lactic acid on *Escherichia coli* O157:H7 membrane lipid composition, verotoxin secretion, and acid resistance in simulated gastric fluid. **Journal of Food Protection** 68:673-679.

Drake<sup>\*</sup>, S.L. and D.L. Marshall. 2005. Incidence of *Listeria* and *Listeria monocytogenes* on processed aquacultured catfish fillets. **Food Protection Trends** 25:438-441.

Duran<sup>\*</sup>, G.M. and D.L. Marshall. 2005. Ready to eat shrimp as an international vehicle of antibiotic resistant bacteria. **Journal of Food Protection** 68:2395-2401.

Yuk<sup>\*</sup>, H.G. and D.L. Marshall. 2006. Effect of trisodium phosphate adaptation on changes in membrane lipid composition, verotoxin secretion, and acid resistance of *Escherichia coli* O157:H7 in simulated gastric fluid. **International Journal of Food Microbiology** 106:39-44.

- Yuk<sup>\*</sup>, H.G., M.Y. Yoo, J.W. Yoon, K.D. Moon, D.L. Marshall, and D.H. Oh. 2006. Effect of combined ozone and organic acid treatment for control of *Escherichia coli* O157:H7 and *Listeria monocytogenes* on lettuce. ***Journal of Food Science*** 71(3):M83-87.9
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Andrews, L.S., C. Robertson, P. Coggins, and D. Marshall. 2006. Using X-ray irradiation to reduce the risk of listeriosis in vacuum packaged smoked mullet. 66th Annual Meeting of the Institute of Food Technologists, June 24-28, Orlando, FL, Technical Program Book of Abstracts, No. 039A-08, p. 97.

Kamadia\*, V.V., M.W. Schilling, D.L. Marshall, L.S. Andrews, and Y. Yoon. 2006. Effect of cooking and packaging methods on consumer acceptability and shelf-life of ready-to-eat Gulf brown shrimp. 66th Annual Meeting of the Institute of Food Technologists, June 24-28, Orlando, FL, Technical Program Book of Abstracts, No. 039A-22, p. 99.

Yoon\*, Y., A.J. Pham, M.W. Schilling, V.V. Kamadia, and D.L. Marshall. 2006. Characterization of the aroma impact compounds of fish sauces by GC-MS based on SPME-OSME-GCO with dilution methods. 66th Annual Meeting of the Institute of Food Technologists, June 24-28, Orlando, FL, Technical Program Book of Abstracts, No. 039F-09, p. 106.

Marshall, D.L. 2006. Traceability challenges and opportunities in international trade. The 20th International Committee on Food Microbiology and Hygiene Symposium, Food Safety and Food Biotechnology: Diversity and Global Impact, Alma Mater Studiorum, Bologna, Italy, 29 August 28-September 2, 2006. Book of Abstracts, p. 133.

Gourama, H., M. Bucks, D.L. Marshall, B. Eardly, and O. Tokarsky. 2006. Identification and characterization of bacteria and molds isolated from bottled water. The 20th International Committee on Food Microbiology and Hygiene Symposium, Food Safety and Food Biotechnology: Diversity and Global Impact, Alma Mater Studiorum, Bologna, Italy, 29 August 28-September 2, 2006. Book of Abstracts, p. 219.

Kamadia\*, V.V., M.W. Schilling, D.L. Marshall, L.S. Andrews, and Y. Yoon. 2007. Effect of cooking and packaging methods on consumer acceptability and shelf-life of ready-to-eat Gulf brown shrimp. Mississippi Academy of Sciences, Starkville, MS. Journal of the Mississippi Academy of Sciences 52(1):35.

Gourama, H., M. Bucks., D.L. Marshall, and O. Tokarsky. 2007. Identification and characterization of molds isolated from bottled water. Presented at the 2007 Workshop of the International Commission on Food Mycology, Key West, FL, June 4-6.

Tokarsky\*, O., L.S. Andrews, and D.L. Marshall. 2007. Depuration in cold and ambient water changes the microbiological profile of Gulf Coast oysters. 94th International Association for Food Protection Annual Meeting, July 8-11, Orlando, FL, Program and Abstracts Book, No. P1-26, p. 124.

Tokarsky\*, O., L.S. Andrews, and D.L. Marshall. 2007. Changes in microbiological profile of Gulf Coast oysters during refrigerated storage. 67th Annual Meeting of the Institute of Food Technologists, July 28-August 1, Chicago, IL, Scientific Program Book of Abstracts, No. 058-08, p. 89.

Kim\*, H., and D.L. Marshall. 2007. Efficacy of cetylpyridinium chloride to reduce *Salmonella* on RTE shrimp. 67th Annual Meeting of the Institute of Food Technologists, July 28-August 1, Chicago, IL, Scientific Program Book of Abstracts, No. 098-02, p. 139.

Marshall, D.L. 2007. Antimicrobial resistant pathogens in seafoods. 67th Annual Meeting of the Institute of Food Technologists, July 28-August 1, Chicago, IL, Scientific Program Book of Abstracts, No. 124-01, p. 168-169.

Yoon\*, Y., M.W. Schilling, R.C. Williams, and D.L. Marshall. 2007. Ionizing irradiation and hydrostatic pressure inactivation of *Escherichia coli* O157:H7 and formation of volatile compounds in ground chuck beef patties. 67th Annual Meeting of the Institute of Food Technologists, July 28-August 1, Chicago, IL, Scientific Program Book of Abstracts, No. 187-39, p. 248-249.

Kumari\*, S., J. Martin, P. Coggins, O. Tokarsky, and D. Marshall. 2008. Combined effect of nisin and buffered solution of sodium citrate and sodium diacetate on surface inoculated *Listeria monocytogenes* on commercial beef frankfurters formulated without antimicrobials stored at 10°C in vacuum packages. 68<sup>th</sup> Annual Meeting of the Institute of Food Technologists, June 29-July 1, New Orleans, LA, Scientific Program Book of Abstracts, No. 052-16, p.

67.

Thesis/Dissertation:

Marshall, D.L. 1985. An evaluation of sucrose fatty acid ester emulsifiers as potential antimicrobial agents. M.S. Thesis, University of Nebraska.

Marshall, D.L. 1989. Commensalism between *Listeria monocytogenes* and *Pseudomonas* species in milk. Ph.D. Dissertation, University of Florida.

Other Publications:

Marshall, D.L. 1990-1993. FDSC/MBIO 4162 Laboratory Manual. Professor Publishing, Kinko's, Baton Rouge, LA.

Marshall, D.L. 1997. Science Literacy and Mayonnaise. FSnet, May 6, University of Guelph, Guelph, Ont.

Marshall, D.L. 1998. Will HACCP give U.S. consumers better seafood? - Reply. Seafood Net, January 16, University of California, Davis, CA.

Non-Juried:

Symposia/Invited Articles

Schmidt, R.H. and D.L. Marshall. 1987. Exotic bacteria in the milk supply. ***Proceedings of the 24th Annual Florida Dairy Production Conference***, Tampa, FL, March 10-11.

Marshall, D.L. and D.H. Oh. 1991. Application of the Bactometer for antimicrobial susceptibility testing. ***1991 Industrial Products Regional Customer Symposium Proceedings***, bioMèrieux Vitek Systems, Inc., Chicago, IL, October 10.

Dorsa<sup>\*</sup>, W.J., D.H. Oh, E.G.A. Verhaegh, and D.L. Marshall. 1993. Control of *Listeria monocytogenes* in processed catfish and crawfish. ***Aquaculture Products Safety Forum Proceedings***, Auburn, AL, February 1-4, pp. 83-96.

Silva, J.L., K.R. Cadwallader, and D.L. Marshall. 1995. Future research ideas. ***Proceedings of the 1994 Catfish Processors Workshop***, Greenwood, MS, October 6, p. 34.

Marshall, D.L. 1995. Future catfish microbiology research. ***Proceedings of the 1994 Catfish Processors Workshop***, Greenwood, MS, October 6, p. 33.

Marshall, D.L. 1995. What's the "HA" in HACCP? *Proceedings of the 1994 Catfish Processors Workshop*, Greenwood, MS, October 6, pp. 30-31.

Jindal\*, V. and D.L. Marshall. 1996. Synergistic inhibition of *Listeria monocytogenes* using monolaurin combined with BHA, BHT, or commercial phosphate blend. Proceedings of the Fall 1995 Meeting and Minutes of Work Groups & Sub Work Groups. Research and Development Associates for Military Food and Packaging Systems, Inc., Boston, MA, October 24-26. *Activities Report* 48(1):224-233.

Marshall, D.L. 1996. Statement of Dr. Douglas L. Marshall. *Marine Shrimp Farming and Aquaculture Research Hearing Before a Subcommittee of the Committee on Appropriations, United States Senate, 104th Congress, 2nd Session, February 16*. Special Hearing 104-476, U.S. Government Printing Office, pp. 76-79.

Marshall, D.L., C.R. Kim, and J.O. Hearnberger. 1996. Extending shelf-life of refrigerated catfish fillets using combinations of sodium acetate, monopotassium phosphate, and bifidobacteria. *Proceedings of the 19th and 20th Annual Conferences of the Tropical and Subtropical Seafood Science and Technology Society of the Americas*, pp. 147-160.

Bal'a\*, M.F.A., P.C. Coggins, and D.L. Marshall. 2003. Sensory qualities of catfish fillets treated with selected organic acids. *Proceedings of the 1996 Catfish Processors Workshop, Bulletin 1121, Mississippi Agricultural & Forestry Experiment Station*, pp. 10-13.

Suvanich\*, V. and D.L. Marshall. 2003. Storage time and temperature effect on catfish frame quality. *Proceedings of the 1996 Catfish Processors Workshop, Bulletin 1121, Mississippi Agricultural & Forestry Experiment Station*, pp. 14-20.

Cotton\*, L.N. and D.L. Marshall. 2003. Microflora of catfish processing equipment surfaces. *Proceedings of the 1996 Catfish Processors Workshop, Bulletin 1121, Mississippi Agricultural & Forestry Experiment Station*, pp. 21-22.

Marshall, D.L. 2005. Antimicrobial properties of medium chain fatty acids and esters. In *Proceedings of the Nutraceuticals and Food Safety for Well-Being Life International Symposium*. Korean Society of Food Science and Nutrition, Yong-Pyong Resort, Gangwon-do, Korea, October 19-21, Paper PL-4, pp. 30-36.

Marshall, D.L. 2005. Technological trends and future direction of pathogen control methods. In *Proceedings of the Trends and Technological Forecasting of Food Safety – Microbiological Risk Symposium*. FPB Research Association, Seoul, Korea, October 24, 2005, pp. 49-70.

## Trade Journal/Popular Press Articles

Marshall, D.L. 1991. Effect of preservation techniques on pathogens. In "***Beef and Dairy Cattle Research Report***". D.D. Zalesky and C.D. Griffin (Eds.). Louisiana Agricultural Experiment Station, Baton Rouge, p. 27.

McMillin, K.W., J.H. Wells, A.J. Farr, D.L. Marshall, M.T. Younathan, and S.P. Meyers. 1991. Interdisciplinary research complements and enhances value-added industries. *Louisiana Agriculture* 34(2):10-11.

Antie<sup>\*</sup>, D.J., D.L. Marshall, and K.W. McMillin. 1993. Development of a HACCP program for cooked roast beef. *Louisiana Cattleman* 26:8, 10, 11, 28.

Marshall, D.L. and P.L.W. Lehigh. 1993. Nobody's nose knows. *CHEMTECH* 23:38-42.

Marshall, D.L. 1995. How air contact can spoil food. *Fine Cooking*, August/September, Issue 10, p. 12.

Antie<sup>\*</sup>, D.J., K.W. McMillin, J.S. Godber, and D.L. Marshall. 2000. Safety and properties of precooked pork roasts with sodium lactate and sodium tripolyphosphate. *Louisiana Agriculture* 43(2):19.

Marshall, D.L. 2001. Perspective - changing population demographics require greater acceptance of technology. *MAFES Research Highlights* 64(4):16-17.

Marshall, D.L. 2002. News you can use: Foodborne illness peaks during the heat of summer. University Relations News Bureau, Mississippi State University, April 25.  
<http://msuinfo.ur.msstate.edu/~dur/nycu/foodborneillness.htm>.

Marshall, D.L. 2005. Message from the chair. *Food Microbiology Division Newsletter*, Institute of Food Technologists, October Issue, pp. 1-2.

Marshall, D.L. 2006. Message from the chair. *Food Microbiology Division Newsletter*, Institute of Food Technologists, March Issue, pp. 1.

Marshall, D.L. 2006. Message from the chair. *Food Microbiology Division Newsletter*, Institute of Food Technologists, June Issue, pp. 1-2.

Marshall, D.L. 2008. Utilizing co-products of ethanol production. *Food Technology* 62(6):140.

Marshall, D.L. 2009. Message from the chair. *Aquatic Food Products Division Newsletter*, Institute of Food Technologists, Spring Issue, pp. 2-3.

**Funded  
Projects**

Ingham, S.C., J.H. Wells, A.J. Farr, and D.L. Marshall. 1989-1990. Relative growth of *Listeria monocytogenes* and spoilage bacteria on precooked dark-meat chicken nuggets during modified atmosphere storage. Project #478. Southeastern Poultry and Egg Association. \$9,440.

Marshall, D.L. 1989-1991. Effects of preservation techniques on growth of pathogenic bacteria in Louisiana muscle foods. Louisiana Agricultural Experiment Station, Hatch Project LAB2722. \$40,000.

Moody, M.W. and D.L. Marshall. 1990. Evaluation of forced air cooling on the microbial quality of Louisiana crabs and oysters. Motivait Seafoods, Inc. \$10,000.

Marshall, D.L. 1990-2004. Rapid determination of microorganisms in muscle- foods using the Bactometer bioMèrieux, Inc., Hazelwood, MO. \$140,000.

Marshall, D.L. 1991-1994. Development of methods to improve the microbiological quality and safety of foods. Louisiana Agricultural Experiment Station, Hatch Project LAB2905. \$80,000.

Marshall, D.L. and K.W. McMillin. 1991-1992. Development of a HACCP program for the control of pathogenic bacteria in roast beef. Manda's Fine Meats, Baton Rouge, LA. \$5,000.

Marshall, D.L. 1991-1993. Food safety and sanitation for aquacultured products - microbial. Southern Regional Aquaculture Center, Stoneville, MS. \$114,000.

Marshall, D.L. 1992-1993. Development of rapid methods to determine the microbiological quality and safety of aquacultured catfish and crawfish. USDA-CSRS. \$10,000.

Cadwallader, K.R., D.L. Marshall, and S.P. Meyers. 1992-1993. Flavor concentrates from crawfish processing byproducts. USDA- CSRS. \$30,000.

McMillin, K.W., D.L. Marshall, and J.H. Wells. 1993-1994. Shelf life extension of case-ready beef with dynamic gas exchange modified atmosphere packaging. National Live Stock and Meat Board. \$27,300.

Marshall, D.L. and A.J. Farr. 1993-1994. Use of ozonated water to improve the quality and safety of processed catfish fillets. USDA-CSRS. \$15,000.

Marshall, D.L. 1993-1994. Development of a new processing method to eliminate *Listeria monocytogenes* from crawfish tail meat. USDA-CSRS. \$18,000.

Marshall, D.L., K.R. Cadwallader, J. Kim, M. Jahncke, and J.G. Dillard. 1994.

Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase I. USDA-CSRS. \$320,048.

Marshall, D.L. 1994-2005. Methods to assure food safety and extend shelf life of processed farm raised catfish. USDA-ARS. \$560,000.

Marshall, D.L., K.R. Cadwallader, and J. Kim. 1995. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase II. USDA-CSREES. \$286,514.

Marshall, D.L. and K.R. Cadwallader. 1996-1997. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase III. USDA-CSREES. \$571,681.

Marshall, D.L., K.R. Cadwallader, and C.F. Fernandes. 1998-2000. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase IV. USDA-CSREES. \$570,464.

Marshall, D.L. 1995-2003. Enhancing food safety through control of foodborne disease agents. USDA-CSREES. \$40,000.

Drake, M.A., J.L. McKillip, and D.L. Marshall. 1998-2001. Rapid quantitation of viable *Escherichia coli* O157:H7 in foods using novel molecular techniques. Special Research Initiatives - Adaptive Biotechnology, Mississippi State University. \$75,000.

Marshall, D.L. 2000. Safety and shelflife of modified atmosphere packaged fresh shrimp. National Fisheries Institute. \$5,000.

Marshall, D.L. 2000. Hot dog challenge study. Bryan Foods Division of Sara Lee. \$12,800.

Marshall, D.L. and M.A. Drake. 2000-2001. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase V. USDA-CSREES. \$285,327.

Marshall, D.L. 2000. Hand wash study. Bryan Foods Division of Sara Lee. \$3,600.

Marshall, D.L. and R.A. Bazemore. 2001-2002. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase VI. USDA-CSREES. \$285,300.

Marshall, D.L., R.A. Bazemore, and L.S. Andrews. 2002-2003. Seafood and aquaculture harvesting, processing and marketing in Mississippi, phase VII. USDA-CSREES. \$285,000.

Marshall, D.L., L.S. Andrews, and M.W. Schilling. 2004-2006. Seafood and

aquaculture harvesting, processing and marketing in Mississippi, phase VIII. USDA-CSREES. \$500,750.

**Professional  
Consultation**

Innova Pure Water, Inc., research and development issues, 1986-1988.

Louisiana Department of Health and Hospitals, food safety issues, 1990-2007.

Emerald Farms, quality assurance issue, 1991.

PJ's Brand Coffee & Tea Co, product development issues, 1991-1993.

Manda's Packing Co., quality assurance issues, 1992.

Baumer Foods, Inc., quality control issues, 1992-present.

McIlhenny Co., quality control issue, 1992.

Simon Hubig Co., product development, quality assurance, and regulatory compliance issues, 1993-present.

Icicle Seafoods, product development issue, 1994.

Sherman Pharmaceuticals, product safety issue, 1994.

Mississippi State Department of Health, food safety issues, 1995-present.

Porter, Scott, Weiberg & Delehant, product liability issue, 1995.

Mississippi State Chemical Laboratory, microbiology testing and food safety issues, 1995-2007.

Bryan Foods, quality control issue, 1995.

*Fine Cooking* magazine, food science issues, 1995.

Universal Industries Corp., food quality issue, 1995.

Codex Alimentarius Committee, Thai Ministry of Industry, food safety issues, 1996-1998.

TechniCAL, Inc., seafood HACCP issue, 1996.

Diversified Industries, product quality and safety issues, 1996-2005.

Bainbridge Festive Foods, product quality issues, 1996.

Manchac Crab and Seafood Co., product quality issue, 1996.

Coastal Seafoods, product safety issues, 1996.

Central Analytical Laboratories, business expansion and microbiological testing issues, 1996-present.

GranPak Foods, Inc., product safety issue, 1996.

Mississippi State Penitentiary, product safety issues, 1997.

State Fair Foods, Inc., product quality issues, 1997.

Bryant's Meat Company, product quality issue, 1997.

Good Source, product safety issue, 1997.

Pelican Food Distributors, product quality issues, 1997.

The Kalencom Corp., product quality issues, 1998.

University of Queretaro, Mexico, curriculum development issues, 1998.

University of Nebraska, seafood sanitation issue, 1998.

Japanese Ministry of International Trade and Industry, HACCP issues, 1998.

Ringer, Bobo & Broome, PLLC, product liability issue, 1998.

U.S. Food and Drug Administration, food safety issue, 1998.

CA Global Express, LLC, regulatory compliance issues, 1998.

Mississippi Department of Agriculture, food safety issues, 1998-present.

Praline Connection, product quality issue, 1999.

Portioned Meats, Inc., regulatory compliance and product quality issues, 1999.

Deep South Blenders, product quality issue, 1999.

Elmers Fine Chocolates, product quality and safety issues, 1999-2000.

Riley Foods Co., product quality and safety issues, 2000.

Gulf Engineering Company, Inc., water quality issue, 2000.

Sara Lee - Bryan Foods Division, product safety issues, 2000.

Southern Hens, product safety issues, 2000-present.

*Consumer Reports* magazine, Consumers Union, seafood safety and quality issues, 2000.

Ohio Board of Regents, Ohio State University Food Science & Technology program review, 2000.

Reed Food Technology, Inc., food safety issues, 2001-2002.

Sylvest Farms of Georgia, food quality issue, 2001.

Rubicon Scientific, LLC, business opportunities issues, 2002.

Wenger Manufacturing, product development issues, 2002.

C.J. Foods, food safety issues, 2002.

Lee and Howard Attorneys at Law, food service liability issue, 2003.

Piazza's Seafood World, LLC, import food safety issue, 2003.

Carmel Seafoods, regulatory compliance issues, 2004.

Gulf Coast Industries, food quality and safety issues, 2004.

Shilo Family Foods, food safety issues, 2005-present.

Perishable Distributors of Iowa, regulatory compliance issues, 2005-present.

Daniel, Coker, Horton and Bell, P.S. Attorneys at Law, product liability issue, 2005.

Alcorn State University, product development issues, 2005. Delta Queen, liability issue, 2006.

Mouledoux, Bland, Legrand & Brackett, PLLC, liability issue, 2006.

James Hubbard's My Family Doctor, food safety issue, 2007.

Goldman Sachs, targeted investment advice, 2008.

Morgan Stanley Alphawise, targeted investment advice, 2008.

Ministry of Agricultural Development, Government of Panama, on-site consultation on agricultural competitiveness of Panamanian businesses, 2008.

Danaher, targeted investment advice, 2009.

New Enterprise Associates, targeted investment advice, 2009.

**Professional  
Association  
Participation**

American Society for Microbiology, 1982-present.

Aksarben Section Institute of Food Technologists, 1983-1985.

Institute of Food Technologists - Professional member, 1983-present.

International Association of Food Protection, 1983-present.

Florida Section Institute of Food Technologists, 1985-1989.

Florida Association of Milk, Food, and Environmental Sanitarians, 1985-1989.

Gulf Coast Section Institute of Food Technologists, 1989-1994.

Louisiana Association of Milk, Food, and Environmental Sanitarians, 1990-1994.

Magnolia Section Institute of Food Technologists, 1994-2007.

Mississippi Environmental Health Association, 1994-2007.

Food Safety Institute - founding member, managing Director, and President, 1996-present.

Rocky Mountain Section Institute of Food Technologists, 2007-present.

**Community  
Service**

Video taped lectures for entire semester of FDSC 4000: General Food Science course for distribution throughout Louisiana to supplement high school science curriculum development projects. August-December 1990.

Developed a proprietary formulation for shelf stable custard style pies. A major food corporation has used this regulatory-approved formulation continuously since 1993.

Delivered an invited interactive talk entitled “Listeria in Ready-To-Eat Foods with Emphasis on Meat and Poultry” broadcast nationally as part of a Satellite Food Safety Teleconference, United States Department of Agriculture, Washington, D.C., November 16, 2000.

Provisional Patent, “Dynamic Gastrointestinal Model Apparatus”, Mississippi State University. With J. Koo, January, 2002.

Other Scholarly Activities:

National/International Activities:

Five-term member, *Journal of Food Protection* Editorial Board, 1989-2007.

Manuscript Peer Reviewer for the following journals (number of manuscripts reviewed); *Journal of Food Protection* (143), *Journal of Food Science* (16), *Food Microbiology* (11), *Food Science and Technology (Lebensmittel-Wissenschaft und-Technologie)* (7), *Journal of Aquatic Food Product Technology* (8), *Trends in Food Science and Technology* (1), *Journal of Food Quality* (2), *Journal of Food Safety* (1), *Applied and Environmental Microbiology* (3), *International Journal of Food Microbiology* (11), *Journal of Dairy Science* (1), *BioTechniques* (1), *Bioresource Technology* (1), *Journal of Food Processing and Preservation* (2). 1989-present.

Member, Peer Advisory Group, bioMèrieux, Inc., Hazelwood, MO, 1990-2006.

Member, Steering Committee for Food Safety - Microbial Project, Southern Regional Aquaculture Center, 1990-1992.

Ad Hoc Proposal Reviewer, Cooperative States Research Service, Chesapeake Bay Aquaculture Project Research Proposals, University of Maryland Agricultural Experiment Station, Maryland Institute for Agriculture and Natural Resources, College Park, MD, December 1992.

Ad Hoc Proposal Reviewer, United States Department of Agriculture, Office of Grants and Program Services, National Research Initiative Competitive Grants Program, Food Safety Program, May 1993, 1996, 1998, 1999, 2001.

Member, Program Advisory Committee, International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, 1993-1995.

Member, Technical Committee, Southern Regional Aquaculture Center, 1993-1995.

Ad Hoc Manuscript Peer Reviewer for the United States Department of Agriculture, Roman L. Hruska U.S. Meat Animal Research Center, 1995-present. Number of manuscripts reviewed (6).

Ad Hoc Proposal Reviewer, United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Saltsonstall-Kennedy Grants Program, January, 1995.

Member, Basic Symposia Committee, Institute of Food Technologists, 1995-1996.

Ad Hoc Proposal Reviewer, Georgia Sea Grant College Program, January, 1996.

Book Reviewer, *HACCP Chemistry*, American Chemical Society, January, 1996.

Chair, IFT Food Microbiology Division Awards Committee, 1996-1997.

Member, IFT Food Microbiology Division Executive Committee, 1996-1997.

Text Book Reviewer, *College Food Science*, West Educational Publishing, Atlanta, GA, November, 1996.

Member, Continuing Education Committee, Institute of Food Technologists, 1996-1998.

Contributing Editor, *Food Safety Report*, Food Safety Institute, 1996-1997.

Panel Member, Ensuring Food Safety Program, USDA-CSREES National Research Initiative Competitive Grants Program, 1997.

Ad Hoc Proposal Reviewer, United States Department of Agriculture, Cooperative State Research, Education, and Extension Service, Small Business Innovation Research Program, February 1998, 1999, 2000, 2004.

Book Chapter Reviewer, *Compendium of Methods for the Microbiological Examination of Foods*, American Public Health Association, August, 1998.

Ad Hoc Proposal Reviewer, Arkansas Section, Food Safety Consortium, November, 1998, 2003.

Book Reviewer, *Analytical Food Microbiology, A Laboratory Manual*, John Wiley & Sons, Inc., September, 1999.

Expert peer review panel member for a CRS document for the US Congress on seafood trade policy issues, March, 2000.

Ad Hoc Proposal Reviewer, Ohio Board of Regents, Columbus, OH, November, 2000.

Contributing Editor, *Food Microbiology*, Elsevier, London, UK, 2001-2007.

Ad Hoc Proposal Reviewer, Louisiana State University Agricultural Center, Aquaculture Special Grants Program, March, 2001.

Member, New Products & Technologies Committee, Institute of Food Technologists, 2001-2003.

Expert participant in a Joint Food and Agriculture Organization of the United Nations / World Health Organization Workshop on the Development of Guidelines for Exposure Assessment of Microbiological Hazards in Foods in Seattle Washington, December 5-9, 2001.

Special Emphasis Panel Member, Center for Scientific Review, National Institutes of Health, 2001-2002.

Panel Member, USDA-CSREES Small Business and Innovation Research Program, 2003.

Panel Member, USDA-CSREES National Integrated Food Safety Initiative, 2003-2004.

Ad Hoc Proposal Reviewer, Oregon State University, Oregon Sea Grant, September, 2003.

Ad Hoc Proposal Reviewer, North Carolina Sea Grant, September, 2003.

Ad Hoc Proposal Reviewer, Washington State University IMPACT Center, October, 2003.

Panel Member, U.S. Department of Commerce-National Oceanic and Atmospheric Administration, Oceans and Human Health Initiative, June, 2004-2005.

Member, Committee on Sections, Institute of Food Technologists, 2004-2007.

Member, *Food Protection Trends* Editorial Board, 2004-2006.

Chair, Institute of Food Technologists, Food Microbiology Division Nominations Committee, 2006-2007.

Local Activities:

President, Affiliate Council Representative, and Founding Member of the Louisiana Association of Milk, Food and Environmental Sanitarians, 1990-1991.

Chair Elect, Gulf Coast Section Institute of Food Technologists, 1993-1994.

Program Chair, Gulf Coast Section Institute of Food Technologists, 1993-1994.

Nomination Committee Chair, Gulf Coast Section Institute of Food Technologists, 1994-1995.

Shortcourse Committee, Magnolia Section Institute of Food Technologists, 1994-1995.

U-6G, U-8G Head Coach, Starkville Youth Soccer Organization, 1998-2004.

Judge, Mississippi Private School Education Association State Science Fair, Starkville Academy, Starkville, MS, April, 1998.

Chair Elect, Magnolia Section Institute of Food Technologists, 1999-2000.

Program Chair, Magnolia Section Institute of Food Technologists, 1999-2000.

Chair, Magnolia Section Institute of Food Technologists, 2000-2001.

Nomination Committee Chair, Gulf Coast Section Institute of Food Technologists, 2002-2003.

Judge, Mississippi State Science Fair, Mississippi State University, 2003-2004.

### **University Service**

Junior (1990) and Senior Faculty Advisor (1991), Louisiana State University Food Science Club.

Member, College of Agriculture Faculty Policy Committee, Louisiana State University, 1989-1991.

Member, Department of Food Science Courses and Curriculum Advisory Committee, Louisiana State University, 1989-1994.

Member, Department of Food Science Graduate Advisory Committee, Louisiana State University, 1989-1994.

Member, Department of Food Science Computer Advisory Committee, Louisiana State University, 1989-1994.

Member, Graduate School Outstanding Dissertation Award Committee - Science, Louisiana State University, 1992-1994.

Junior (1994) and Senior (1995-1997) Faculty Advisor, Mississippi State University Food Science Club.

Member, College of Agriculture and Home Economics Aquaculture Curriculum Committee, Mississippi State University, 1994.

Member, Mississippi Agriculture and Forestry Experiment Station Annual Conference Planning Committee, 1994-1995.

Acting Head, Department of Food Science and Technology, Mississippi State University, September, 1994.

Two-term Member, Mississippi State University Holland Faculty Senate, 1996-

2002. Served on Student Affairs Subcommittee.

Member, Department of Food Science & Technology Undergraduate Committee, Mississippi State University, 1996-1997.

Member, Department of Food Science & Technology Promotion and Tenure Committee, Mississippi State University, 1996-2006.

Member, Department of Food Science & Technology Graduate Committee, Mississippi State University, 1997-2006.

Member and Parliamentarian, Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine Faculty Senate, 1997-1999. Served on Faculty Affairs Subcommittee.

Member, Screening and Interviewing Committee for Mississippi State University College of Veterinary Medicine Food Safety faculty position, 1997.

Chair, Ag and Forestry Summit II, Building Technological Resources Task Force 3, Subcommittee on Food Safety, Mississippi State University, 1998.

Chair, Food Chemist Search Committee, Department of Food Science & Technology, Mississippi State University, 1999-2000.

Member, Health Committee, Mississippi State University, 1999-2007.

Member, Tuition Waiver Appeal Committee for Faculty/Staff, Mississippi State University, 1999-2002.

Chair, Ag Division Representatives to Holland Faculty Senate, Mississippi State University, 2000-2001.

Chair, Food Scientist Search Committee, Coastal Research & Extension Center, Mississippi State University, 2000.

Member, College of Agriculture and Life Sciences Promotion and Tenure Planning Committee, Mississippi State University, 2001.

Member, College of Agriculture and Life Sciences Promotion and Tenure Committee, Mississippi State University, 2001-2002, 2006-2007.

Chair, Food Molecular Biologist Search Committee, Department of Food Science & Technology, Mississippi State University, 2001.

Member, School of Human Sciences Director Search Committee, Division of Agriculture, Forestry, and Veterinary Medicine, Mississippi State University, 2001.

Chair, William White Special Grants review committee, Division of Agriculture, Forestry, and Veterinary Medicine, Mississippi State University, 2003.

Member, College of Agriculture and Life Sciences Teaching Award Committee, 2004-2006.

Chair, Molecular Food Safety Search Committee, Department of Food Science, Nutrition & Health Promotion, Mississippi State University, 2006.

Chair, Gunter Hall Space Utilization Committee, College of Natural and Health Sciences, University of Northern Colorado, 2007-present.

Chair, College of Natural and Health Sciences Awards Committee, University of Northern Colorado, 2007-present.

Member, Community Health Faculty Positions Search Committee, College of Natural and Health Sciences, University of Northern Colorado, 2007-2008.

Co-chair, Ross Hall Space Utilization Committee, College of Natural and Health Sciences and College of Humanities and Social Sciences, University of Northern Colorado, 2008-present.

Chair, Special Assistant to the Dean Search Committee, College of Natural and Health Sciences, University of Northern Colorado, 2008.

Member, Colorado School of Public Health Associate Deans Search Committee, 2008.

### **Graduate Student Committees**

Doctoral Dissertations Chair:

D.H. Oh. 1993. Antimicrobial properties of glycerol monolaurate either alone or combined with selected organic acids against *Listeria monocytogenes*. Louisiana State University.

W.J. Dorsa. 1994. Effects of heat, lactic acid, and modified atmosphere packaging on *Listeria monocytogenes* on cooked crawfish tail meat. Louisiana State University.

P.L. Wiese Lehigh. 1994. The development and evaluation of impedance technology to determine the quality of shrimp and catfish. Louisiana State University.

V. Suvanich. 1997. Impact of storage time and temperature on quality attributes of catfish frames, frame mince, and surimi. Mississippi State University.

J. Koo. 1998. Survival of *Vibrio vulnificus* and *Vibrio vulnificus* phage in a

simulated gastrointestinal model. Mississippi State University.

J. Kim. 1999. Effect of catfish skin mucus on lactic acid and trisodium phosphate inactivation of attached *Salmonella typhimurium*, *Edwardsiella tarda*, and *Listeria monocytogenes*. Mississippi State University.

J.A. Gooch. 2000. Factors affecting quantitative and qualitative changes in *Vibrio parahaemolyticus* and *Vibrio vulnificus* populations in oysters. Mississippi State University.

H.G. Yuk. 2003. Environmental stresses alter *Escherichia coli* O157:H7 membrane lipid composition and verotoxin secretion. Mississippi State University.

#### Masters Theses Chair:

J.K. Odame-Darkwah. 1992. Inhibition of *Bacillus pumilus* with *Propionibacter shermanii*. Louisiana State University.

J.J. Kim. 1992. Isolation and partial genetic characterization of plasmids from *Plesiomonas shigelloides*. Louisiana State University.

D.N. Domma. 1994. Development of impedance technology for detection and enumeration of *Vibrio cholerae* and *Vibrio vulnificus*. Louisiana State University.

V.D.P. Pothuri. 1994. Combined effects of packaging atmospheres and chemical preservatives on the growth and survival of *Listeria monocytogenes* in crayfish (*Procambarus clarkii*) tail meat. Louisiana State University.

S.P. Donnelly. 1995. Application of ozonated water for quality and safety of catfish fillets. Louisiana State University.

I. Jamila. 1996. Formation and control of *Aeromonas hydrophila* biofilms. Mississippi State University.

A.M. Metcalfe. 1998. Microbial population changes during simulated retail display of raw shrimp. Mississippi State University.

L.A. Ray. 2000. Antimicrobial potential of the xanthene dye phloxine B. Mississippi State University.

T.M. Trotter. 2000. Influence of pH, NaCl, and temperature on monolaurin inactivation of *Streptococcus iniae*. Mississippi State University.

G.M. Duran. 2003. Antibiotic resistant bacteria in ready to eat shrimp. Mississippi State University.

T.J. Rutherford. 2004. Combined effects of packaging atmosphere, storage temperature, and antimicrobials on selected quality and safety attributes of ready-to-eat shrimp. Mississippi State University.

A. Pal. 2004. Comparison of selected quality parameters between U.S. farm-raised catfish fillets and Vietnamese basa fish fillets. Mississippi State University.

A. Todorovic. 2004. Influence of prior growth temperature at 5, 10, and 37°C on survival of *Listeria monocytogenes* in a simulated dynamic gastric model. Mississippi State University.

C.B. Robertson. 2004. Effect of X-ray irradiation on reducing the risk of listeriosis in ready-to-eat vacuum packed smoked mullet. Mississippi State University.

O. Tokarskyy. 2005. Comparison of methods to verify end-point cooking temperature of channel catfish fillets. Mississippi State University.

## Teaching

University of Nebraska

Lincoln, NE

1983 Spring – 1984 Fall

General Microbiology-Junior level laboratory course (TA)

Food Microbiology- Senior/graduate level laboratory course (TA)

University of Florida

Gainesville, FL

1986 Spring - 1986 Fall

Food Microbiology- Senior/graduate level laboratory course (TA)

Food Chemistry- Senior/graduate level laboratory course (TA)

Research Planning- Graduate level lecture and laboratory course (TA)

Louisiana State University

Baton Rouge, LA

1990 Fall -1994 Spring

General Food Science- Senior level lecture

Microbiology of the Dairy and Food

Industries- Senior/graduate level lecture and laboratory course

Mississippi State University

Mississippi State, MS

1994 - 2006

Introductory Food Science- Freshman level lecture course

Epidemiology of Foodborne Infections- Graduate level lecture course

Microbiology of Foods- Senior/graduate level lecture and laboratory course

Advanced Food Microbiology- Graduate level lecture course

Seafood Processing- Senior/graduate level lecture course  
 Food Science Seminar - Senior/graduate level lecture and laboratory course

University of Northern Colorado  
 Greeley, CO  
 2007-present  
 International Health: Cross Cultural Comparisons – Graduate level lecture course

Teaching Interests:

Food Microbiology, Food Toxicology, Foodborne Diseases, Food Safety, Food Processing, Food Fermentations, Introductory/General Food Science, Quality Assurance/Control, Food Product Development, HACCP.

Measure of Teaching Ability:

	<u>Evaluation points</u>
Student Perception of Teaching Results - LSU 5 = superior, 1 = unsatisfactory	
My Average (8 courses - 4 years)	4.25
LSU College of Agric. Average (4 years)	3.98
Student Evaluation of Faculty Results - MSU 5 = superior, 1 = unsatisfactory	
My Average (22 courses – 11 years)	4.24
No comparative campus figures available	
Course/Instructor Evaluation – UNC 5 = superior, 1 = unsatisfactory	
My Average (1 course – 1 year)	4.57
No comparative campus figures available	

Student Advisee Accomplishments:

J.J. Kim. 1991. Finalist, Developing Scientist Award Competition, IAMFES Annual Meeting, Louisville, KY.

D.H. Oh. 1991. Finalist and honorable mention winner, J.C. Ayres Food Microbiology Award Competition, IFT Annual Meeting, Dallas, TX.

W.J. Dorsa. 1991. \$1,000 South Central Section IFT Graduate Student Scholarship.

P.L. Wiese-Lehigh. 1991. \$200 Gulf Coast Section IFT Graduate Student

Travel Award.

P.L. Wiese-Lehigh. 1992. Finalist and winner, Quality Assurance Division Graduate Student Paper Competition, IFT Annual Meeting, New Orleans, LA.

D.H. Oh. 1992. Finalist, Developing Scientist Award Competition, IAMFES Annual Meeting, Toronto, Can.

D.N. Domma. 1993. \$250 LSU Food Science Club Scholarship.

P.L.W. Lehigh. 1993. \$100 LSU Food Science Club Scholarship.

W.J. Dorsa. 1993. Semifinalist, Phi Tau Sigma Graduate Student Paper Competition, IFT Annual Meeting, Chicago, IL.

P.V.D. Pothuri. 1994. Finalist, J.C. Ayres Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, Atlanta, GA.

D.N. Domma. 1994. Semifinalist, Phi Tau Sigma Graduate Student Paper Competition, IFT Annual Meeting, Atlanta, GA.

D.N. Domma. 1994. \$500 Gulf Coast Section IFT Graduate Student Travel Award.

P.V.D. Pothuri. 1994. Semifinalist, Phi Tau Sigma Graduate Student Paper Competition, IFT Annual Meeting, Atlanta, GA.

D.N. Domma. 1994. Finalist and winner, J.C. Ayres Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, Atlanta, GA.

W.J. Dorsa. 1994. Finalist and winner, Z. John Ordal Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, Atlanta, GA.

J. Koo. 1996. Outstanding MSU Food Science Club Member, IFT Annual Meeting, New Orleans, LA.

V. Suvanich. 1996. Finalist and honorable mention, Phi Tau Sigma Graduate Student Paper Competition, IFT Annual Meeting, New Orleans, LA.

V. Suvanich. 1997. Finalist and winner, Seafood Technology Division Graduate Student Paper Competition, IFT Annual Meeting, Orlando, FL.

J. Koo. 1998. Finalist and third place winner, Korean American Food Technologists Association Graduate Research Competition, IFT Annual Meeting, Atlanta, GA.

G. Duran. 2001. Finalist and winner, Z. John Ordal Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, New Orleans, LA.

S. Drake. 2002. Finalist and second place winner, Phi Tau Sigma Undergraduate Research Paper Competition, IFT Annual Meeting, Anaheim, CA.

H. Yuk. 2002. Finalist and third place winner, Z. John Ordal Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, Anaheim, CA.

H. Yuk. 2003. Finalist and third place winner, Korean American Food Technologist Association Graduate Student Paper Competition, IFT Annual Meeting, Chicago IL.

A. Pal. 2004. Finalist and fifth place winner, Graduate Student Association, Life Sciences Oral Competition, 2<sup>nd</sup> Annual Research Symposium, Mississippi State University.

O. Tokarsky. 2007. Finalist and fifth place winner, J.C. Ayres Food Microbiology Division Graduate Student Paper Competition, IFT Annual Meeting, Chicago, IL.

Dr. Marshall's former graduate students have been employed in academia (Univ. Arkansas, Auburn Univ., Virginia Tech, Louisiana St. Univ., Univ. Maryland, Kangweon Univ., Univ. Guam, Singapore National Univ.), government (USDA-ARS, USDA-FSIS, Ghana Standards Board, Korean Nuclear Institute) and industry (Rochester Midland, Dean Foods, General Mills, Liprino, Morill, Kraft, ConAgra, Food Sciences Inc., Ameripure, National Food Processors Association, Reed Food Technology).

#### Other Teaching Experience:

Instructor, Better Process Control School, Louisiana State University, Baton Rouge, LA, 1990-1995.

Host to A.O. Fapohunda, visiting scientist from the University of Nottingham, U.K., January 10, 1992-July 1, 1992.

Host to J.E. Moore, visiting lecturer from the Queens University of Belfast, N. Ireland, November 18, 1992.

Host to E.G.A. Verhaegh, visiting scientist from the University of Wageningen, The Netherlands, November 1, 1992-February, 29, 1993.

Instructor, Food Science Shortcourse for Public Health Environmentalists,

Mississippi State University, Mississippi State, MS, July 17-21, 1995.

Team Coach, Mississippi State University IFT College Bowl Team. 1996-1997. Team won the 1997 Southcentral Region Competition and was a national finalist (finished top six).

Host to Director and two Associates of the Office of National Codex Alimentarius Committee, Thai Industrial Standards Institute, Ministry of Industry, Bangkok, Thailand for training session on food safety June 17-20, 1996.

Instructor, Food Safety Institute Shortcourse "Developing Your Company's Good Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP". New Orleans, LA, August 5, 1996.

Instructor, Food Safety Institute Shortcourse "Developing Your Company's Good Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP". Baton Rouge, LA, October 10, 1996.

Instructor, Food Safety Institute Shortcourse "Developing Your Company's Good Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP". Jackson, MS, October 24, 1996.

Instructor, "AFDO Certified HACCP for Seafood Processors Shortcourse", Mississippi State University, Mississippi State, MS, December 17-19, 1996, May 28-30, 1997, March 17-19, 1998, October 26-28, 1999, November 27-29, 2000, October 1-3, 2002, November 18, 2004.

Instructor, "SSOPs and *E. coli* Sampling/Testing Workshop for Meat and Poultry Processors", Mississippi State University, Mississippi State, MS, January 17, 1997.

Official Monitor, IFT Shortcourse on Ingredient Technology. Orlando, FL, June 13-14, 1997.

Host to Director and two Associates of the Office of National Codex Alimentarius Committee, Thai Industrial Standards Institute, Ministry of Industry, Bangkok, Thailand for training session on food science and technology June 19-24, 1997.

Instructor, "AFDO Certified HACCP for Seafood Processors Shortcourse", Coastal Research and Extension Center, Experimental Seafood Laboratory, Mississippi State University, Pascagoula, MS, July 10-12, 1997, September 3-5, 1997, October 15-17, 1997, May 19-21, 1998.

Instructor, "International Red Meat and Poultry Alliance Certified Developing and Implementing HACCP in Small and Medium-Sized Plants", Louisiana State University Agricultural Center, Baton Rouge, LA, August 22-24, 1997.

Instructor, "Food Science and Technology Workshop for Science and FACE Teachers", Mississippi State University, Mississippi State, MS, July 13-15, 1998.

Host to T. Okida, visiting scientist from the Hiroshima Prefectural Food Technology Research Center, Ministry of International Trade and Industry, Hiroshima, Japan, September 4-14, 1998. HACCP instruction.

Instructor, "Sanitation Standard Operating Procedures for the Food Processing Industries", Mississippi State University, Mississippi State, MS, January 12, 2005.

Served on 35 graduate advisory committees, 26 as chair (1 currently).  
Graduated 8 Ph.D. and 14 M.S. students as major advisor.

**Professional  
Development  
Activities**

Speaking Engagements:

Invited Speaker, talk titled "Commensalism Between *Listeria monocytogenes* and *Pseudomonas*." Presented at the Department of Food Science and Applied Microbiology, University of Saskatchewan, Saskatoon, SK, CAN, February 7, 1989.

Invited Speaker, talk titled "Commensalism Between *Listeria monocytogenes* and *Pseudomonas*." Presented at the Department of Food Science, University of Illinois, Urbana, IL, August 15, 1989.

Invited Speaker, talk titled "Commensalism Between *Listeria monocytogenes* and *Pseudomonas*." Presented at the Department of Food Science, Louisiana State University, Baton Rouge, LA, September 7, 1989.

Invited Keynote Address, talk titled "What is *Listeria* and Methods for Control." Presented at the *Listeria* Workshop, Louisiana Meat Industry Association Fall Meeting, Opelousas, LA, November 4, 1989.

Guest Speaker, talk titled "LSU Food Science Program." Presented at the East Baton Rouge Parish 4-H Conference, Baton Rouge, LA, April 28, 1990.

Invited Speaker, talk titled "Coliforms and *E. coli*." Presented at the HACCP Workshop - Rapid Microbiological Methods for the Seafood Industry, Louisiana Cooperative Extension Service, Louisiana State University, July 31, 1990.

Invited Speaker, talk titled "Interactive Behavior of *Listeria monocytogenes* and pseudomonads in milk." Presented at the Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI, October 12, 1990.

Invited Speaker, talk titled "Mechanism of a Commensal Relationship between

*Listeria* and *Pseudomonas* in Milk." Presented at the Department of Food Science and Nutrition, Ohio State University, Columbus, OH, January 7, 1991.

Invited Keynote Address, talk titled "Perceptions of Food Safety: Myths and Facts." Presented as part of a Technical Symposium entitled "Food Safety: A Priority Issue for Our Biosphere," at the Spring Meeting of the Louisiana Section of the American Society of Agricultural Engineers, Cocodrie, LA, April 19, 1991.

Invited Speaker, talk titled "Application of the Bactometer for Antimicrobial Susceptibility Testing." Presented as part of a Regional Customer Symposium sponsored by bioMérieux Vitek Systems, Inc., Chicago, IL, October 10, 1991.

Invited Speaker, talk titled "Determination of Seafood Freshness using Impedance Technology." Presented as part of a symposium sponsored by the American Chemical Society, San Francisco, CA, April, 1992.

Invited Speaker, talk titled "Combined Effects of Monolaurin with Organic Acids Against *Listeria monocytogenes*." Presented at the Department of Food Science, University of Wisconsin, Madison, WI, September 29, 1992.

Invited Speaker, talk titled "Control of *Listeria monocytogenes* in Processed Meats." Presented at the Department of Food Science, University of Wisconsin, Madison, WI, September 28, 1992.

Invited Speaker, talk titled "Inhibition of *Listeria monocytogenes* by Monolaurin." Presented at the Department of Food Science, University of Tennessee, Knoxville, TN, January 15, 1993.

Invited Speaker, talk titled "Destruction of *Listeria monocytogenes* by Monolaurin." Presented at the Department of Food Science, Cornell University, Ithaca, NY, March, 22, 1993.

Invited Speaker, talk titled "*Listeria monocytogenes* on Packaged Catfish and Crawfish Meat." Presented as part of the Aquaculture Products Safety Forum sponsored by the Southern Regional Aquaculture Center, Auburn, AL, February 1-4, 1993.

Invited Speaker, talk titled "Recent Developments in Food Quality and Safety." Presented at the Department of Food Science and Technology, Mississippi State University, Mississippi State, MS, September 8, 1993.

Invited Speaker, talk titled "Recent Advances in Seafood Quality and Safety Enhancement." Presented at the Seagrant Office, Alaska Cooperative Extension Service, University of Alaska-Fairbanks, Anchorage, AK, July 12, 1994.

Invited Speaker, talk titled "Determination of Shrimp Freshness using Impedance Technology." Presented at the Department of Biochemistry and

Molecular Biology, Mississippi State University, Mississippi State, MS, August 31, 1994.

Invited Speaker, talk titled "Future Catfish Microbiology Research." Presented at the 1994 Catfish Processors Workshop, Greenwood, MS, October 6, 1994.

Invited Speaker, talk titled "What's the `HA' in HACCP?" Presented at the 1994 Catfish Processors Workshop, Greenwood, MS, October 6, 1994.

Invited Speaker, talk titled "Future Research Needs." Presented at the 1994 Catfish Processors Workshop, Greenwood, MS, October 6, 1994.

Guest Speaker, talk titled "Food Science as a Career." Presented to science classes at Harrison Central High School, Gulfport, MS, January 18, 1995.

Invited Speaker, talk titled "Antimicrobial Properties of Monolaurin." Presented at the Florida Department of Citrus, Lake Alfred, FL, August 30, 1995.

Invited Speaker, talk titled "Problem Solving Through Food Microbiology Research." Presented at the Department of Animal and Dairy Science, University of Maryland, College Park, MD, September 6, 1995.

Invited Speaker, talk titled "Use of Multiple Barriers to Improve the Quality and Safety of Foods." Presented at Cargill, Inc., Minneapolis, MN, October 20, 1995.

Invited Speaker, testimony on "Seafood and Aquaculture Harvesting, Processing, and Marketing in Mississippi" presented at the official site hearing of the U.S. Senate Agriculture, Rural Development, and Related Agencies Appropriations Subcommittee, Committee on Appropriations. J.L. Scott Marine Education Center and Aquarium, Biloxi, MS, February 16, 1996.

Invited Speaker, talk titled "MSU Food Safety Research" presented to the Food Science Program national review team, Mississippi State University, Mississippi State, MS, February 26, 1996.

Invited Speaker, talk titled "GMP's and SOP's for Food Processors" presented at a Food Safety Institute Shortcourse Developing Your Company's Good Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP. New Orleans, LA, August 5, 1996.

Invited Speaker, talk titled "GMP's and SOP's for Food Processors" presented at a Food Safety Institute Shortcourse Developing Your Company's Good Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP. Baton Rouge, LA, October 10, 1996.

Invited Speaker, talk titled "GMP's and SOP's for Food Processors" presented at a Food Safety Institute Shortcourse Developing Your Company's Good

Manufacturing Practices (GMP's) and Standard Operating Procedures (SOP's) - Setting the Stage for HACCP. Jackson, MS, October 24, 1996.

Invited Speaker, talk titled "Microbiological Testing Suppliers - What to Look For" presented at the Mississippi State University Shortcourse SSOPs and *E. coli* Sampling/Testing Workshop for Meat and Poultry Processors. Mississippi State, MS, January 17, 1997.

Invited Speaker, talk titled "Food Processing Capabilities at Mississippi State University" presented at the North Central Food Processing Industry Group Meeting. Chicago, IL, March 5-6, 1997.

Guest Speaker, talk titled "Food Science As a Career". Presented to an agricultural science course at Hinds Community College, Raymond, MS, April 16, 1997.

Invited Speaker, talk titled "Mississippi Center For Food Safety and Post Harvest Processing". Presented at a USDA-ARS Aquaculture Symposium, New Orleans, LA, June 5-6, 1997.

Invited Speaker, talk titled "Biofilms in Aquatic Food Processing". Part of a Symposium entitled "Washing Makes a Difference". 84th Annual Meeting of the International Association of Milk, Food, and Environmental Sanitarians. Orlando, FL, July 6-9, 1997.

Invited Speaker, talk titled "Use of Impedance Technology to Determine Freshness of Crustacean Foods. Part of a Symposium entitled "New Techniques in the Analysis of Foods". Presented at the Annual Meeting of the American Chemical Society, September 7-11, Las Vegas, NV.

Guest Speaker, talk titled "Food Science as a Career." Presented to science classes at Harrison Central High School, Gulfport, MS, October 8, 1997.

Invited Speaker, talk titled "Biopreservatives: Natural Antimicrobials that Improve Quality and Safety of Foods". Presented at the Department of Food Science and Human Nutrition, Washington State University, Pullman, WA, October 23, 1997.

Invited Speaker, talk titled "Use of Naturally Occurring Chemicals to Improve Food Quality and Safety". Presented at the National Food Processors Association, Washington, DC, October 27, 1997.

Invited Speaker, talk titled "Intervention and Detection Strategies to Improve the Microbial Quality and Safety of Foods". Presented at the Department of Microbiology, Oregon State University, Corvallis, OR, December 11, 1997.

Invited Speaker, talk titled "Antimicrobial Properties of the Multifunctional Ingredient Monolaurin". 1998 International Conference of Food System

Functionality, June 24-27, Atlanta, GA.

Invited Speaker, talk titled "Novel Bactometer Routines." Presented at bioMèrieux, Inc., Hazelwood, MO, June 30, 1999.

Invited Distinguished Fellow Lecturer, talk titled "Rapid and Impedance Methods for Seafood." Presented at the Rapid Methods and Automation in Microbiology 19th International Workshop/Symposium Shaping the New Millennium, Kansas State University, Manhattan, KS, July 9, 1999.

Invited Speaker, talk titled "Introduction: Internet and Software Basics." Presented at the New Software Tools for Product Applications shortcourse. Institute of Food Technologists, Chicago, IL, July 23, 1999.

Invited Speaker, talk titled "Product Safety Evaluation Tools and Regulatory Data Bases." Presented at the New Software Tools for Product Applications shortcourse. Institute of Food Technologists, Chicago, IL, July 24, 1999.

Invited Speaker, talk titled "Food Safety Intervention Strategies for Processors". Presented at the Department of Food Science and Human Nutrition, Washington State University, Pullman, WA, March 6, 2000.

Invited Speaker, talk titled "Food Science in the 21st Century". Presented at the Department of Food Science and Toxicology, University of Idaho, Moscow, ID, March 20, 2000.

Invited Speaker, talk titled "Listeria in Ready-To-Eat Foods with Emphasis on Meat and Poultry". Presented as part of a Satellite Food Safety Teleconference, United States Department of Agriculture, Washington, D.C., November 16, 2000.

Invited Speaker, talk titled "Rapid Shellfish Freshness Detection Using Impedance Technology". Presented at the Technical Innovations in Seafood Products & Processing Conference, National Fisheries Institute, Orlando, FL, February 13, 2001.

Invited Speaker, talk titled "Novel Impedance-Based Methods For Rapid Food Quality and Safety Assessment". Presented at the Department of Food Science and Technology, University of Nebraska, Lincoln, NE, July 25, 2001.

Invited Speaker, talk titled "Improving the Microbial Quality and Safety of Seafoods Using Novel Intervention and Detection Strategies". Presented at the Oregon State University Seafood Laboratory, Astoria, OR, November 20, 2001.

Invited Speaker, talk titled "Probiotic Potential of Bifidobacteria". Presented during the symposium "Probiotics as Antimicrobials and Health Promoting Agents", 102<sup>nd</sup> General Meeting of the American Society for Microbiology, Salt Lake City, UT, May 22, 2002.

Invited Speaker, talk titled “Functional Application of Monolaurin in Foods and Feed”. Presented at Rubicon Scientific, Sabetha, KS, June 3, 2002.

Invited Speaker, talk titled “Nutrition and Food Science in the 21st Century”. Presented at the Department of Nutrition and Food Science, Utah State University, Logan, UT, August 20, 2002.

Invited Speaker, talk titled “New Approaches to Control Food Safety Hazards in Food Service”. Presented at Nestle PTC, New Milford, CT, October 29, 2002.

Invited Speaker, talk titled “Application of Food Biopreservatives: Technical and Economical Challenges”. Presented during the symposium “Biopreservatives: Impact on Food Industry and Human Health”, 63rd Annual Meeting of the Institute of Food Technologists, Chicago, IL, July 12-16, 2003.

Invited Speaker, talk titled “Safety of Ready-To-Eat Seafood and Retail Sushi”. Presented during the symposium “Hot Topics in Seafood Quality and Safety”, 90th Annual Meeting of the International Association for Food Protection, New Orleans, LA, August 10-13, 2003.

Invited Speaker, talk titled “Seafood and Aquaculture Harvesting, Processing, and Marketing”. Presented during the USDA-CSREES Aquatic Foods Workshop, Washington, DC, October 29-30, 2003.

Invited Speaker, talk titled “Voodoo Clues for the Delta Blues: Pre-Harvest Food Safety Interventions for Aquaculture”. Presented during the symposium “Update on the Science and Application of Pre-Harvest Intervention”, Food Microbiology Research Conference XIX, Chicago, IL, November 9-12, 2003.

Invited Speaker, talk titled “Vision of Food Safety and Food Security”. Presented to the Iowa State University Institute for Food Safety and Security, Ames, IA, June 3, 2004.

Invited Speaker, talk titled “Impact of Ice Quality in Seafood Process”. Presented during the symposium “Ice as a Food: A Cooling Media and for Entertainment”, 64th Annual Meeting of the Institute of Food Technologists, Las Vegas, NV, July 12-16, 2004.

Invited Speaker, talk titled “Finfish Warmwater”. Presented during the premeeting workshop “Best Practices for Safe and High Quality Aquaculture Products. 91st International Association for Food Protection Annual Meeting, Phoenix, AZ, August 8-11, 2004.

Invited Speaker, talk titled “Modified Atmosphere Packaging and *Listeria monocytogenes*”. Presented during the symposium “Packaging Innovations, Safety Concerns and Seafood”, 91st Annual Meeting of the International Association for Food Protection, Phoenix, AZ, August 8-11, 2004.

Invited Keynote Lecturer, talk titled “How Many Microbes Are Still Undiscovered?” Presented during the symposium “Food Microbiota”, 19th International Committee on Food Microbiology and Hygiene Symposium, Food Micro 2004, Portorož, Slovenia, September 12-16, 2004.

Invited Speaker, talk titled “Fermentation Technology: Safety in a Bioreactor.” Presented during the inaugural Fermented Foods and Beverages Division symposium “Many Faces of Fermentation Technology”, 65th Annual Meeting of the Institute of Food Technologists, New Orleans, LA, July 16-20, 2005.

Invited Speaker, talk titled “Seafood and Aquaculture Food Safety.” Presented during the USDA-CSREES Food Safety Workshop, Washington, DC, August 22-24, 2005.

Invited Speaker, talk titled “Antimicrobial Properties of Medium Chain Fatty Acids and Esters.” Presented during the Korean Society of Food Science and Nutrition International Symposium “Nutraceuticals and Food Safety for Well-Being Life”, Yong-Pyong Resort, Gangwon-do, Korea, October 19-21, 2005.

Invited Speaker, talk titled “Technological Trends and Future Direction of Pathogen Control Methods.” Presented during the FPB Research Association Symposium “Trends and Technological Forecasting of Food Safety – Microbiological Risk”, Seoul, Korea, October 24, 2005.

Invited Speaker, talk titled “Voodoo Clues for the Delta Blues: Pre and Post Harvest Seafood Safety Interventions”. Presented during the S-295 Ensuring Food Safety Regional Project Annual Meeting, Las Vegas, NV, November 16-17, 2005.

Invited Keynote Lecturer, talk titled “Traceability Challenges and Opportunities in International Trade”. Presented during the 20th International Committee on Food Microbiology and Hygiene Symposium, Food Safety and Food Biotechnology: Diversity and Global Impact, Alma Mater Studiorum, Bologna, Italy, 29 August 28-September 2, 2006.

Invited Speaker, talk titled “Antimicrobial Resistant Pathogens in Seafoods.” Presented during the 67th Annual Meeting of the Institute of Food Technologists Symposium Control of Antibiotic Resistant Pathogens in the Food Supply, Part 2, Chicago, IL, July 28-August 1, 2007.

Invited Speaker, talk titled “Voodoo Clues for the Delta Blues.” Presented to the University of Northern Colorado School of Biology Seminar Series, Greeley, CO, October 5, 2007.

Invited Speaker, talk titled “Antimicrobial Resistant Pathogens”. Presented during the Institute of Food Technologists Aquatic Food Products Division Workshop “Best Practices Workshop for Analyzing Seafood Residues. 68<sup>th</sup>

Annual Meeting of the Institute of Food Technologists, New Orleans, LA, June 28, 2008.

Invited Speaker, talk titled “Voodoo Clues for the Delta Blues”. Presented during the Colorado State University, Department of Animal Science Seminar Series, Fort Collins, CO, October 7, 2008.

Invited Speaker, talk titled “Assessment of Training and Technical Assistance Needs related to Sanitary and Phytosanitary (SPS) Programs in Panama: Seafoods. Presented to the Panamanian Ministry of Agricultural Development Competitive Office, Panama City, Panama, October 20, 2008.

Invited Speaker, talk titled “Science Literacy and Mayonnaise”. Presented to the Rocky Mountain Section of the Institute of Food Technologists, Thornton, CO, February 26, 2009.

#### Meeting Participation:

Chair, Facilities Subcommittee, Local Arrangements Committee, 75th International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, Tampa, FL, August 1-4, 1988.

Chair, Video Theater Subcommittee, Local Arrangements Committee, 53rd Institute of Food Technologists Annual Meeting, New Orleans, LA, June 20-24, 1992.

Phi Tau Sigma Undergraduate Paper Competition Judge, 53rd Institute of Food Technologists Annual Meeting, New Orleans, LA, June 20-24, 1992.

Convener, Sessions 10, 31, 53, and 71, 53rd Institute of Food Technologists Annual Meeting, New Orleans, LA, June 20-24, 1992.

Convener, Dairy Technical Session, 80th International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, Atlanta, GA, August 1-4, 1993.

Convener, Microbiology/Analytical/Sensory/Nutrition Session, Food Science and Human Nutrition Section, Southern Regional Sections of Institute of Food Technologists, 92nd Southern Association of Agricultural Scientists Annual Meeting, New Orleans, LA, January 29-31, 1995.

Convener, Foodborne Pathogens/Methods/Toxins Technical Session, No. 21, 56th Institute of Food Technologists Annual Meeting, Anaheim, CA, June 3-7, 1995.

Phi Tau Sigma Undergraduate Paper Competition Judge, 56th Institute of Food Technologists Annual Meeting, Anaheim, CA, June 3-7, 1995.

Symposium Organizer and Convener, Alternative Processing Strategies for Pasteurization of Foods Session, 82nd International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, Pittsburgh, PA, July 30-August 2, 1995.

Convener, Behavior of Pathogens Technical Session, 82nd International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, Pittsburgh, PA, July 30-August 2, 1995.

J.C. Ayres Poster Competition Judge, Food Microbiology Division, 57th Institute of Food Technologists Annual Meeting, New Orleans, LA, June 22-26, 1996.

Symposium Organizer and Convener, Emerging Issues in Food Mycology Symposium, 83rd International Association of Milk, Food, and Environmental Sanitarians Annual Meeting, Seattle, WA, June 30-July 3, 1996.

Chair, Food Microbiology Division Z.J. Ordal and J.C. Ayres Graduate Student Paper Competitions, 58th Annual Meeting of the Institute of Food Technologists, Orlando, FL, June 14-18, 1997.

Shortcourse Monitor, Beverage Production and Technology for the 21st Century, Institute of Food Technologists, Atlanta, GA, June 19-20, 1998.

Phi Tau Sigma Graduate Paper Competition Judge, 59th Institute of Food Technologists Annual Meeting, Atlanta, GA, June 20-24, 1998.

Abstract Peer Reviewer, Seafood Division, 60th Institute of Food Technologists Annual Meeting, Chicago, IL, July 24-28, 1999.

Program Co-Director, Developer, and Instructor for an Institute of Food Technologists Annual Meeting Shortcourse "New Software Tools for Product Development," Chicago, IL, July 23-24, 1999.

Moderator, Food Microbiology Technical Session, No. 61, 60th Institute of Food Technologists Annual Meeting, Chicago, IL, July 24-28, 1999.

Panel Member, Symposium to Develop Strategies for Small and Limited Resource Agricultural Producers, Chicago, IL, May 11-12, 2000.

Moderator, Food Microbiology Technical Session, No. 41, 61st Institute of Food Technologists Annual Meeting, New Orleans, LA, June 23-27, 2001.

J.C. Ayres Poster Competition Judge, Food Microbiology Division, 62nd Institute of Food Technologists Annual Meeting, Anaheim, CA, June 15-19, 2002.

Moderator, New Products & Technologies: Fortification, Nutrition, Testing, and Computers Technical Session No. 74, 62nd Institute of Food Technologists Annual Meeting, Anaheim, CA, June 15-19, 2002.

Symposium Organizer and Convener, Current Issues in Seafood Safety Symposium No. S12, 89th International Association for Food Protection Annual Meeting, San Diego, CA, June 30-July 3, 2002.

Convener, Foodborne Pathogens Technical Session No. T05, 90th Annual Meeting of the International Association for Food Protection, New Orleans, LA, August 10-13, 2003.

Chair, Local Arrangements Committee, 90th Annual Meeting of the International Association for Food Protection, New Orleans, LA, August 10-13, 2003.

Moderator, New Products & Technologies: Innovations in Food Safety Technical Session No. N-208, 64th Annual Meeting of the Institute of Food Technologists, Las Vegas, NV, July 12-16, 2004.

Program Organizer, Director, and Instructor for an International Association for Food Protection Workshop "Best Practices for Safe and High Quality Aquaculture Products. 91st International Association for Food Protection Annual Meeting, Phoenix, AZ, August 7, 2004.

Symposium Chair, Food Microbiota Session 2, 19th International Committee on Food Microbiology and Hygiene Symposium, Food Micro 2004, Portorož, Slovenia, September 12-16, 2004.

Abstract Peer Reviewer, 65th and 66th Institute of Food Technologists Annual Meeting, Food Microbiology Division, 2005-2006.

Moderator, Food Microbiology: Antimicrobials, Bacteriocins and Preservatives Technical Session No. 78, 65th Annual Meeting of the Institute of Food Technologists, New Orleans, LA, July 16-20, 2005.

Moderator, USDA-CSREES Food Safety Workshop, Washington, DC, August 22-24, 2005.

Moderator, Microorganisms as Vehicle of Hazard in Food Systems Technical Session. The 20th International Committee on Food Microbiology and Hygiene Symposium, Food Safety and Food Biotechnology: Diversity and Global Impact, Alma Mater Studiorum, Bologna, Italy, 29 August 28-September 2, 2006.

Symposium Organizer and Moderator, Control of Antimicrobial Resistant Pathogens in the Food Supply, Part 1. 67th Annual Meeting of the Institute of Food Technologists, Chicago, IL, July 28-August 1, 2007.

Symposium Organizer and Convener, Co-Products of Ethanol Plants: Food Application, Animal Nutrition, and Regulatory/QA Issues, Session 186. 68<sup>th</sup> Annual Meeting of the Institute of Food Technologists, New Orleans, LA, June 29-July 1, 2008.

Program Organizer, Director, and Instructor for an Institute of Food Technologists Aquatic Food Products Division Workshop “Best Practices Workshop for Analyzing Seafood Residues. 68<sup>th</sup> Annual Meeting of the Institute of Food Technologists, New Orleans, LA, June 28, 2008.

Moderator, Translating Process Validations for Consumers: What to do with the D-values? Panel Discussion. 69<sup>th</sup> Annual Meeting of the Institute of Food Technologists, Anaheim, CA, June 9, 2009.

## **Honors and Awards**

Awards:

Recipient of the University of Nebraska Rogick Memorial Award, 1983.

Finalist in the Z. John Ordal Graduate Research Paper Competition, 46th IFT Annual Meeting, Atlanta, GA, June 1985.

Finalist in the Aksarben Section IFT Graduate Research Paper Competition, May 1985.

Finalist and third place winner in the Developing Scientist Award Competition, 75th IAMFES Annual Meeting, Tampa, FL, August 1988.

Recipient of the University of Florida, College of Agriculture Outstanding Graduate Student Award, May 1989.

Recipient of the Mississippi State University College of Agriculture and Life Sciences and Mississippi Agricultural and Forestry Experiment Station Faculty/Research Scientist Award, February 1998.

Recipient of the Mississippi Agricultural and Forestry Experiment Station, Mississippi State University Research Impact Award, November 1998.

Recipient of the Mississippi Agricultural and Forestry Experiment Station, Mississippi Chemical Corporation Award of Excellence for Outstanding Work, November, 1999.

Recipient of the Ralph E. Powe Research Excellence Award, Mississippi State University, April 2002.

Recipient of the International Association for Food Protection Educator Award, presented at the 89th IAFP Annual Meeting, June 30-July 3, 2002, San Diego,

CA.

Honors:

Beta Beta Beta Biology Honorary Society, 1982.

Sigma Xi Scientific Research Society, 1985.

Phi Tau Sigma Food Science Honorary Society, 1985.

Elected Graduate Student Representative, Food Science and Human Nutrition Department, University of Florida, 1986-1988.

President, Affiliate Council Representative, and Founding Member of the Louisiana Association of Milk, Food and Environmental Sanitarians, 1990-1991.

Chair Elect, Gulf Coast Section Institute of Food Technologists, 1993-1994.

Gamma Sigma Delta Agriculture Honorary Society, 1993.

IFT Champion, Institute of Food Technologists Student Association, 1998-present.

Distinguished Fellow Lecturer, Rapid Methods and Automation in Microbiology 19th International Workshop/Symposium Shaping the New Millennium, Kansas State University, Manhattan, KS, July 9, 1999.

Appointed to the joint Food and Agriculture Organization of the United Nations and the World Health Organization Roster of Experts on Risk Assessment of Microbiological Hazards in Foods, 2000.

Chair, Magnolia Section Institute of Food Technologists, 2000-2001.

Appointed to the Special Emphasis Panel, Infectious Diseases and Microbiology Study Section, ZRG1 SSS-K 10, Center for Scientific Review, National Institutes of Health, NIH-SBIR/STTR, 2001.

Appointed Contributing Editor for the London UK based peer-reviewed scientific journal *Food Microbiology*, 2001.

Keynote Lecturer, 19th International Committee on Food Microbiology and Hygiene Symposium, Food Micro 2004, Portorož, Slovenia, September 12-16, 2004.

Chair Elect, Chair, Past Chair, Institute of Food Technologists Food Microbiology Division, 2004-2007.

Fellow, Institute of Food Technologists, 2005.

Keynote Lecturer, 20th International Committee on Food Microbiology and Hygiene Symposium, Food Safety and Food Biotechnology: Diversity and Global Impact, Alma Mater Studiorum, Bologna, Italy, 29 August 28-September 2, 2006.

Chair Elect, Chair, Past Chair, Institute of Food Technologists Aquatic Food Products Division, 2007-2010.