

Curriculum vitae

Charles William Kaspar

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Formal education

1980 Bachelor of Science, Biology; University of Nebraska-Omaha, Omaha, Nebraska.
1983 Master of Science, Microbiology; Iowa State University, Ames, Iowa.
1986 Doctor of Philosophy, Microbiology; Iowa State University, Ames, Iowa.
1986-1988 Postdoctorate, University of Maryland, Center for Marine Biotechnology, College Park, MD

Professional experience

2015-present Chair, Department of Bacteriology, University of Wisconsin, Madison, Wisconsin
2007-present Professor, Department of Bacteriology, University of Wisconsin, Madison, Wisconsin
2002-2006 Professor, Food Microbiology & Toxicology; University of Wisconsin, Madison, Wisconsin.
2003-2005 Director of Molecular and Environmental Toxicology Center; University of Wisconsin, Madison, Wisconsin.
2002-2003 Interim Director of Molecular and Environmental Toxicology Center; University of Wisconsin, Madison, Wisconsin.
1999-2002 Associate Director of Environmental Toxicology Center; University of Wisconsin, Madison, Wisconsin.
1998-2002 Associate Professor, Food Microbiology & Toxicology; University of Wisconsin, Madison, Wisconsin.
1992-98 Assistant Professor, Food Microbiology & Toxicology; University of Wisconsin, Madison, Wisconsin.
1990-92 Technical Director of Microbiology, Cargill, Analytical Services, Cedar Rapids, Iowa.
1988-90 Microbiologist, U.S. Food and Drug Administration, Fishery Research Branch, Dauphin Island, Alabama.
1986-88 Post-doctoral Research Associate, Department of Microbiology and Center for Marine Biotechnology; University of Maryland, College Park, Maryland.
1982-86 Research Assistant, Microbiology; Iowa State University, Ames, Iowa.
1980-82 Teaching Assistant, Microbiology; Iowa State University, Ames, Iowa.

Society memberships

American Society for Microbiology

Affiliate appointments

Molecular and Environmental Toxicology Center, UW-Madison
Department of Animal Sciences, UW-Madison
Department of Food Science, UW-Madison

Award

Pound Research Award, 2000. College of Agricultural and Life Sciences, UW-Madison

Publications

1. Kaspar, C. W., P. A. Hartman, and M. J. Allison. 1986. Monensin does not increase yields of propionic acid fermentations. *Biotechnology Letters* 7:779–782.
2. Kaspar, C. W., and P. A. Hartman. 1987. Production and specificity of monoclonal and polyclonal antibodies to *Escherichia coli*. *Journal of Applied Bacteriology* 63:355–341.
3. Kaspar, C. W., P. A. Hartman, and A. K. Benson. 1987. Coagglutination and enzyme capture tests for detection of *Escherichia coli* b-galactosidase, b-glucuronidase, and glutamate decarboxylase. *Applied and Environmental Microbiology* 53:1073–1077.
4. Mernaugh, R. L., C. W. Kaspar, D. P. Durand, J. H. Hill, and F. E. Jones. 1987. A simple, efficient standard-dilution method for cloning hybridomas. *Biotechnology Techniques* 1:31–33.
5. Holt, S., P. A. Hartman, and C. W. Kaspar. 1989. An enzyme-capture test for the detection of *Escherichia coli* in oysters. *Applied and Environmental Microbiology* 55:229–232.
6. Knight, I. T., S. Shults, C. W. Kaspar, and R. R. Colwell. 1990. Direct detection of *Salmonella* in estuarine water and wastewater with a DNA probe. *Applied and Environmental Microbiology* 56:1059–1066.
7. Kaspar, C. W., J. Burgess, I. T. Knight, and R. R. Colwell. 1990. Antibiotic resistance of *Escherichia coli* from urban and rural waters. *Canadian Journal of Microbiology* 36:891–894.
8. Tamplin, M. L., A. L. Martin, A. D. Rupple, D. W. Cook, and C. W. Kaspar. 1991. Enzyme immunoassay for detection of *Vibrio vulnificus* in oysters, seawater, and sediment. *Applied and Environmental Microbiology* 57:1235–1240.
9. Hernandez, J. F., C. W. Kaspar, P. A. Hartman, and R. R. Colwell. 1993. Microtitration plate most-probable-number tests for the enumeration of *Escherichia coli* in estuarine and marine waters. *Journal of Microbiological Methods* 18:11–19.
10. Kaspar, C. W., and M. L. Tamplin. 1993. The effects of temperature and salinity on the survival of *Vibrio vulnificus* in seawater and shellfish. *Applied and Environmental Microbiology* 59:2425–2429.
11. Harsono, K. D., C. W. Kaspar, and J. B. Luchansky. 1993. Comparison and genomic sizing of *Escherichia coli* O157:H7 isolates by pulsed-field gel electrophoresis. *Applied and Environmental Microbiology* 59:3141–3144.
12. Buchrieser, C., and C. W. Kaspar. 1993. An improved direct viable count for the enumeration of bacteria in milk. *International Journal of Food Microbiology* 20:227–236.
13. Ak, N. O., D. O. Cliver, and C. W. Kaspar. 1993. Decontamination of plastic and wooden cutting boards for kitchen use. *Journal of Food Protection* 57:23–30,36.
14. Ak, N. O., D. O. Cliver, and C. W. Kaspar. 1993. Cutting boards of plastic and wood contaminated experimentally with bacteria. *Journal of Food Protection* 57:16–22.

15. Miller, L. G., and C. W. Kaspar. 1994. *Escherichia coli* O157:H7 acid tolerance and survival in apple cider. *Journal of Food Protection* 57:460–464 [errata 57:645].
16. Buchrieser, C., O. Buchrieser, A. Kristl, and C. W. Kaspar. 1994. Clamped homogenous electric fields (CHEF) gel-electrophoresis of DNA restriction fragments for comparing genomic variations among strains of *Yersinia enterocolitica* and *Yersinia* spp. *Zentralblatt für Bakteriologie* 281:457–470.
17. Degnan, A. J., C. W. Kaspar, W. S. Otwell, M. L. Tamplin, and J. B. Luchansky. 1994. Evaluation of lactic acid bacteria fermentates and food grade chemicals to control *Listeria monocytogenes* in blue crab meat (*Callinectes sapidus*). *Applied and Environmental Microbiology* 60:3198–3203.
18. Buchrieser, C., S. D. Weagant, and C. W. Kaspar. 1994. Molecular characterization of *Yersinia enterocolitica* using pulsed-field gel electrophoresis and *ail* and pYV probes. *Applied and Environmental Microbiology* 60:4371–4379.
19. Buchrieser, C., V. V. Ganger, R. L. Murphree, M. L. Tamplin, and C. W. Kaspar. 1995. Multiple *Vibrio vulnificus* strains in oysters as demonstrated by clamped homogeneous electric field gel electrophoresis. *Applied and Environmental Microbiology* 61:1163–1168.
20. Arnold, K. W., and C. W. Kaspar. 1995. Starvation- and stationary phase-induced acid tolerance in *Escherichia coli* O157:H7. *Applied and Environmental Microbiology* 61:2037–2039.
21. Proctor, M. E., R. Brosch, J. W. Mellen, L. A. Garrett, C. W. Kaspar, and J. B. Luchansky. 1995. Use of pulsed-field gel electrophoresis to link sporadic cases of invasive listeriosis with recalled chocolate milk. *Applied and Environmental Microbiology* 61:3177–3179.
22. Lee, M.-S., C. W. Kaspar, R. Brosch, J. Shere, and J. B. Luchansky. 1996. Genomic analysis using pulsed-field gel electrophoresis of *Escherichia coli* O157:H7 isolated from dairy calves during the United States national dairy heifer evaluation project (1991–1992). *Veterinary Microbiology* 48:223–230.
23. Faith, N.G., J. A. Shere, R. Brosch, K. W. Arnold, S. E. Ansay, M.-S. Lee, J. B. Luchansky, and C. W. Kaspar. 1996. Prevalence and clonal nature of *Escherichia coli* O157:H7 on dairy farms in Wisconsin. *Applied and Environmental Microbiology* 62:1519–1525.
24. Cheville, A. M., K. W. Arnold, C.-M. Cheng, C. Buchrieser, and C. W. Kaspar. 1996. Role of *rpoS* in acid tolerance and stress resistance in *Escherichia coli* O157:H7. *Applied and Environmental Microbiology* 62:1822–1824.
25. Tamplin, M. L., R. L. Murphree, J. Keith Jackson, V. Ganger, L. G. Miller, C. Buchrieser, and C. W. Kaspar. 1996. Pulsed-field gel electrophoresis and ribotype profiles of clinical and environmental *Vibrio vulnificus* isolates. *Applied and Environmental Microbiology* 62:3572–3580.
26. Hinkens, J., N. G. Faith, T. D. Lorang, P. Bailey, D. Buege, C. W. Kaspar, and J. B. Luchansky. 1996. Validation of pepperoni processes for control of *Escherichia coli* O157:H7. *Journal of Food Protection* 59:1260–1266.
27. Buchrieser, C., R. Brosch, O. Buchrieser, A. Kristl, J. B. Luchansky, and C. W. Kaspar. 1997. Pulsed-field analyses of *Salmonella enteritidis* phage type 4 strains from Austria and phage type 8 strains from the United States. *Zentralblatt für Bakteriologie*. 285:379–388.

28. Parveen, S., R. L. Murphree, L. Edmiston, C. W. Kaspar, K. M. Portier, and M. L. Tamplin. 1997. Association of multiple-antibiotic resistance profiles with point and nonpoint sources of *Escherichia coli* in Apalachicola Bay. *Applied and Environmental Microbiology* 63:2607–2612.
29. Ansay, S. E., and C. W. Kaspar. 1997. Survey of retail cheeses, dairy-processing environments, and raw milk for *Escherichia coli* O157:H7. *Letters in Applied Microbiology* 25:131–134.
30. Faith, N. G., N. Parniere, T. Larson, T. D. Lorang, C. W. Kaspar, and J. B. Luchansky. 1998. Viability of *Escherichia coli* O157:H7 in salami following conditioning of batter, fermentation and drying of sticks, and storage of slices. *Journal of Food Protection* 61:377–382.
31. Cheng, C.-M., and C. W. Kaspar. 1998. Growth and processing conditions affecting acid tolerance in *Escherichia coli* O157:H7. *Food Microbiology* 15:157–166.
32. Faith, N. G., R. K. Wierzba, A. M. Ihnot, A. M. Roering, T. D. Lorang, C. W. Kaspar, and J. B. Luchansky. 1998. Survival of *Escherichia coli* O157:H7 in full- and reduced-fat pepperoni after manufacture of sticks, storage of slices at 4°C or 21°C under air and vacuum, and baking of slices on frozen pizza at 135, 191, and 246°C. *Journal of Food Protection* 61:383–389.
33. Gouveia, S., M. Proctor, M.-S. Lee, J. B. Luchansky, and C. W. Kaspar. 1998. Genomic comparisons and Shiga toxin production among *Escherichia coli* O157:H7 isolates from a day care center outbreak and sporadic cases in southeastern Wisconsin. *Journal of Clinical Microbiology* 36:727–733.
34. Shere, J. A., K. J. Bartlett, and C. W. Kaspar. 1998. Longitudinal study of *Escherichia coli* O157:H7 dissemination on four dairy farms in Wisconsin. *Applied and Environmental Microbiology* 64:1390–1399.
35. Roering, A. M., A. M. Ihnot, J. B. Luchansky, C. W. Kaspar, and S. C. Ingham. 1999. Comparative survival of *Salmonella typhimurium* DT 104 and *Escherichia coli* O157:H7 in preservative-free apple cider. *International Journal of Food Microbiology* 46:263–269.
36. Byrd, J. J., A. M. Cheville, J. L. Bose, and C. W. Kaspar. 1999. Lethality of a heat- and phosphate-catalyzed glucose by-product to *Escherichia coli* O157:H7 and partial protection conferred by the *rpoS* regulon. *Applied and Environmental Microbiology* 65:2396–2401.
37. Ansay, S. E., K. A. Darling, and C. W. Kaspar. 1999. Survival of *Escherichia coli* O157:H7 in ground beef patties during storage at 2, –2, 15 and then –2°C, and –20°C. *Journal of Food Protection* 62:1243–1247.
38. Price, S.B., C. M. Cheng, C. W. Kaspar, J. C. Wright, F. J. DeGraves, T. A. Penfound, M. P. Castanie-Cornet, and J. W. Foster. 2000. Role of *rpoS* in acid resistance and fecal shedding of *Escherichia coli* O157:H7. *Applied and Environmental Microbiology* 66:632–637.
39. Choi, S. H., D. A. Baumler, and C. W. Kaspar. 2000. Contribution of *dps* to acid stress tolerance and oxidative stress tolerance in *Escherichia coli* O157:H7. *Applied and Environmental Microbiology* 66:3911–3916.
40. Calicioglu, M., C. W. Kaspar, D. R. Buege, and J. B. Luchansky. 2002. Effectiveness of spraying with tween 20 and lactic acid in decontaminating inoculated *Escherichia coli* O157:H7 and indigenous *Escherichia coli* biotype I on beef. *Journal of Food Protection* 65:26–32.

41. Shere, J. A., C. W. Kaspar, K. J. Barlett, S. E. Linden, B. Norell, S. Francey, and D. M. Schaefer. 2002. Shedding of *Escherichia coli* O157:H7 in dairy cattle housed in a confined environment following waterborne inoculation. *Applied and Environmental Microbiology* 68:1947–1954.
42. Bryrne, C. A., I. Erol, J. E. Coll, C. W. Kaspar, D. R. Buege, C. J. Hiemke, P. Fedorka-Cray, A. K. Benson, F. M. Wallace, and J. B. Luchansky. 2003. Characterization of *Escherichia coli* O157:H7 from downer and healthy dairy cattle in the upper midwest region of the United States. *Applied and Environmental Microbiology* 69:4683–4688.
43. Macalady, J. L., M. M. Vestling, D. Baumler, N. Boekelheide, C. W. Kaspar, and J. F. Banfield. 2004. Tetraether-linked membrane monolayers in *Ferroplasma* spp.: a key to survival in acid. *Extremophiles* 8:411–419.
44. Hudock, J. F., A. C. Borger, and C. W. Kaspar. 2005. Temperature dependent coccoid formation and genome degradation in *Campylobacter jejuni*. *Current Microbiology*.50(2):110–113.
45. Baumler, D. J., K.-C. Jeong, B. G. Fox, J. F. Banfield, and C. W. Kaspar. 2005. Sulfate requirement for heterotrophic growth of “*Ferroplasma acidarmanus*” strain fer1. *Research in Microbiology* 156(4):492–498.
46. Jeong, K.-C., D. J. Baumler, and C. W. Kaspar. 2006. *dps* expression in *Escherichia coli* O157:H7 requires an extended – 10 region and is affected by the cAMP receptor protein. *Biochimica et Biophysica Acta* 1759:51–59.
47. Hung, K. F., J. J. Byrd, J. L. Bose, and C. W. Kaspar. 2006. Reduction of acid tolerance by tetracycline in *Escherichia coli* expressing *tetA(c)* is reversed by cations. *Applied and Environmental Microbiology* 72: 4472-4474.
48. Baumler, D. J., K. F. Hung, J. L. Bose, B. M. Vykhodets, C. M. Cheng, K.-C. Jeong, and C. W. Kaspar. 2006. Enhancement of acid tolerance in *Zymomonas mobilis* by a proton-buffering peptide. *Applied Biochemistry and Biotechnology* 134: 15-26.
49. Erol, I., K. C. Jeong, D. J. Baumler, B. Vykodets, S. H. Choi, and C. W. Kaspar. 2006. H-NS controls metabolism and stress tolerance in *Escherichia coli* O157:H7 that influence mouse passage. *BMC Microbiology* 6:72.
50. Jeong, K. C., M. Y. Kang, C. Heimke, J. A. Shere, I. Erol, and C. W. Kaspar. 2007. Isolation of *Escherichia coli* O157:H7 from the gall bladder of inoculated and naturally-infected cattle. *Veterinary Microbiology* 119:339-345.
51. Baumler, D., K. Hung, K. C. Jeong, and C. W. Kapsar. 2007. Production of methanethiol and volatile sulfur compounds by the archaeon “*Ferroplasma acidarmanus*”. *Extremophiles* 11:841-851
52. Jeong, K. C., K. F. Hung, D. J. Baumler, J. J. Byrd, and C. W. Kaspar. 2008. Acid stress damage of DNA is prevented by Dps binding in *Escherichia coli* O157:H7. *BMC Microbiology* 8:181.
53. Baumler, D. J., K.-F. Hung, K. C. Jeong, and C. W. Kaspar. 2008. Molybdate treatment and sulfate starvation decrease ATP and DNA levels in *Ferroplasma acidarmanus*. *Archaea* 2:205-209.

54. Muammer Goncuoglu, Irfan Erol, Naim Deniz Ayaz, F. Seda Bilir Ormanci and C. W. Kaspar. 2010. Isolation and genomic characterization of *Escherichia coli* O157:H7 in bile of cattle. *Annals in Microbiology* 60:293-297.
55. Jeong, K.C., M. Y. Kang, J. Kang, D. J. Baumler, and C. W. Kaspar. 2011. Reduction of *Escherichia coli* O157:H7 shedding in cattle by addition of chitosan microparticles to feed. *Applied and Environmental Microbiology* 77:2611-2616.
56. Bani-Yaghoub, M., R. Gautam, D. Dopfer, C. W. Kaspar, and R. Ivanek. 2011. Effectiveness of environmental decontamination as an infection control measure. *Epidemiology and Infection*: 1-12.
57. Gautam, R., M. Bani-Yaghoub, W. H. Neill, D. Dopfer, C. Kaspar, and R. Ivanek. 2011. Modeling the effect of seasonal variation in ambient temperature on the transmission dynamics of a pathogen with a free-living stage: Example of *Escherichia coli* O157:H7 in a dairy herd. *Preventive Veterinary Medicine* 102:10-21.
58. Gonzales, T. K., M. Kulow, D.-J. Park, C. W. Kaspar, K. S. Anklam, K. M. Pertzborn, K. D. Kerrish, R. Ivanek-Miojevic, and D. Dopfer. 2011. A high-throughput open-array qPCR gene panel to identify, virulotype, and subtype O157 and non-O157 enterohemorrhagic *Escherichia coli*. *Molecular and Cellular Probes* 25:222-230.
59. Anklam, K.S., K.S.T. Kouankege, T.K. Gonzales, C.W. Kaspar, and D. Dopfer. 2012. Rapid and simultaneous detection of Shiga-toxin producing *Escherichia coli* O26, O45, O103, O111, O121, and O157 by real-time multiplex PCR. *Journal of Food Protection* 75:643-650.
60. Glass, K. A., C. W. Kaspar, J. J. Sindelar, A. L. Milkowski, B. M. Lotz, J. Kang, N. G. Faith, E. Enache, A. Kataoka, and C. Henry. 2012. Validation of Pepperoni Process for Control of Shiga-Toxin Producing *Escherichia coli*. *Journal of Food Protection* 75:838-846
61. Stackhouse, R., N. Faith, C. W. Kaspar, C. Czuprynski, and A. Wong. 2012. Formation, survival, and virulence of stress-induced filamentous *Salmonella*. *Applied and Environmental Microbiology* 78:2213-2220
62. Gautam, R., D. Dopfer, C. W. Kaspar, M. Kulow, T. Gonzales, K.M. Pertzborn, R.J. Carroll, W. Grant, and R. Ivanek. 2012. The strain specific dynamics of *Escherichia coli* O157:H7 fecal shedding in cattle post inoculation. *Journal of Biological Dynamics* 6:1052-1066.
63. Pratt, Z., B. Chen, C.J. Czuprynski, Amy C.L. Wong, and C.W. Kaspar. 2012. Characterization of osmotic-induced filaments of *Salmonella enterica*. *Applied and Environmental Microbiology* 78:6704-6713
64. Stasic, A. J., A. C. L. Wong, and C. W. Kaspar. 2012. Osmotic and desiccation tolerance in *Escherichia coli* O157:H7 requires *rpoS* (σ^{38}). *Current Microbiology* 65:660-665
65. Mand, T., D. Dopfer, C. Ane, B. Ingham, and C. W. Kaspar. 2012. Growth and survival parameter estimates and relation to RpoS levels in serotype O157:H7 and non-O157 Shiga toxin-producing *Escherichia coli*. *Journal of Applied Microbiology* 114:242-255.
66. Kulow, M., T. Gonzales, K. Pertzborn, J. Dahm, B. Miller, D. Park, R. Gautam, C.W. Kaspar, R. Ivanek, and D. Dopfer. 2012. Colonization and shedding patterns after oral challenge with three

Escherichia coli O157:H7 strains of different origin. *Applied and Environmental Microbiology* 78:8045-8055.

67. Park, D., E. Stanton, K. Ciezki, D. Parrell, M. Bozile, D. Pike, S. A. Forst, K. Jeong, R. Ivanek, D. Dopfer, and C. W. Kaspar. 2013. Evolution of *stx*₂-prophage in persistent bovine *Escherichia coli* O157:H7 strains. *Applied and Environmental Microbiology* 79:1563-1572.
68. Jeong, K. C., O. Hiki, M. Y. Kang, D. Park, and C. W. Kaspar. 2013. Prevalent and persistent *Escherichia coli* O157:H7 strains on farms are selected by bovine passage. *Veterinary Microbiology* 162:912-920.
69. Khan, M. A., M. M. López-Muñoz, C. W. Kaspar, and K. F. Hung. 2013. Activities of methionine- γ -lyase in the acidophilic archaeon "*Ferroplasma acidarmanus*" strain fer1. *Research and Reports in Biology* 4:11-22.
70. Jayaraman, Dhileepkumar, Charles W. Kaspar, and Jean-Michel Ané. 2013. Colonization of *Medicago truncatula* roots by *Salmonella enterica* and *Escherichia coli* O157:H7. *PLOS One* 9:e87970
71. Stanton, E., D. Park, D. Dopfer, R. Ivanek, and C. W. Kaspar. 2014. Phylogenetic characterization of *Escherichia coli* O157:H7 based on IS629 distribution and Shiga toxin genotype. *Microbiology* 160:502-513.
72. Shiroda, M., Z. Pratt, A. Wong, D. Dopfer, and C. W. Kaspar. 2014. RpoS impacts lag phase of *Salmonella enterica* during osmotic stress. *FEMS Microbiology Letters* 357:195-200.
73. Gomez, S. A., M. Kulow, K. S. Anklam, D. Park, C. W. Kaspar, R. Ivanek, and D. Dopfer. 2014. Gene markers of generic *Escherichia coli* associated with colonization and persistence of *Escherichia coli* O157 in cattle. *Preventive Veterinary Medicine* 117:140-148.
74. Gautam, R., M. Kulow, D. Park, T. K. Gonzales, J. Dahm, M. Shiroda, A. J. Stasic, D. Dopfer, C. W. Kaspar, and R. Ivanek. 2015. Transmission of *Escherichia coli* O157:H7 in cattle is influenced by the level of environmental contamination. *Epidemiology and Infection* 143:274-287.
75. Kanankege, K., K. Anklam, B.H. Ingham, C.W. Kaspar, and D. Doepfer. 2017. Evaluating the efficacy of beef slaughter line interventions by quantifying the six major non-O157 Shiga toxin producing *Escherichia coli* serogroups using real-time PCR. *Food Microbiology* 63:228-238.

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Book chapters

1. Hartman, P. A., J. P. Petzel, and C. W. Kaspar. 1986. New methods for indicator organisms. In *Foodborne Microorganisms and Their Toxins: Developing Methodology*. Pierson, M. D. and N. J. Stern (eds.), p. 175–217. New York: Marcel Dekker.
2. Kaspar, C. W. and P. C. S. Feng. 1989. Monoclonal antibodies to coliforms and their use in food and environmental microbiology. In *Impact of Biotechnology on Microbial Detection, Estimation, and Characterization*. Swaminathan, B. and G. Prakash (eds.), p. 637–655. New York: Marcel Dekker.

3. Kaspar, C. W. and C. Tartera. 1990. Methods for detecting microbial pathogens in food and water. In *Methods in Microbiology*. Norris, J. R. and R. Grigorova (eds.), p. 497–531. London: Academic Press.
4. Kaspar, C. W. and J. Hudock. 1997. Environmental monitoring. In *Concepts of On-Line Monitoring of Microbial Contaminants of Food*. M. W. Griffiths (ed.).
5. Jones, D. L. and C. W. Kaspar. 2002. Human enteric pathogens in the farming environment. In *Agriculture, Hydrology and Water Quality*. Haygarth, P. M. and S. C. Jarvis (eds.), p. 133–153. CAB International.
6. Pratt, Z., M. Shiroda, A.J. Stasic, J. Lensmire, and C.W. Kaspar. 2016. Osmotic and desiccation tolerance in *Escherichia coli* O157:H7 and *Salmonella enterica* requires *rpoS* (σ^{38}). In *Stress and Environmental Control*, De Bruijn, Frans J. (ed.). John Wiley and Sons.

Technical publications and conference proceedings

1. Colwell, R. R., I. T. Knight, C. Somerville, S. S. Schults, and C. W. Kaspar. 1989. Viable but non-culturable in relationship to starvation/survival, "injury", and strategies for survival of bacteria in the environment. *Proceedings of the International Symposium of Microbial Ecology (ISME-5)*.
2. Kaspar, C. W. 1992. Significance of bacterial responses to stress. *FRI Newsletter* 4(3):1,7.
3. Kaspar, C. W. 1993. Setting up an environmental monitoring system and the use of rapid methods of pathogen detection. *Cheese Research and Technology Conference*, Madison, WI.
4. Kaspar, C. W. 1993. Current FRI research on *Escherichia coli* O157:H7. *FRI Newsletter* 5(3):1-2.
5. Kaspar, C. W. 1994. Incidence of *Escherichia coli* O157:H7 on Wisconsin farms. *FRI Newsletter* 6(1):1-2.
6. Degnan, A. J., C. W. Kaspar, R. L. Murphree, S. Otwell, M. L. Tamplin, and J. B. Luchansky. 1994. Control of *Listeria monocytogenes* in blue crab meat using lactic acid bacteria fermentates. *Proceedings from the Third Joint Conference, Atlantic Fisheries Technology Society and Tropical and Subtropical Fisheries Technology Society*, Williamsburg, VA.
7. Hudock, J. F., and C. W. Kaspar. 1995. What's new with an old pathogen. *FRI Newsletter* 7(1):2.
8. Kaspar, C. W. 1996. Safety concerns with unpasteurized fruit juices. *FRI Newsletter* 8(1):2.
9. Kaspar, C. W. 1996. Toxicity transfer – the target moves. *FRI Newsletter* 8(2):1–2.
10. Nickelson, R. N., J. Luchansky, C. Kaspar, and E. Johnson. 1996. Dry fermented sausage and *E. coli* O157:H7. Blue Ribbon Task Force, National Cattlemen's Beef Association, Research Report No. 11-316.
11. Kaspar, C. W. 1997. Farm update – *E. coli* O157:H7 dissemination in Wisconsin dairy herds. *FRI Newsletter* 9(3):3.
12. Kaspar, C. W. and R. Weiss. 1998. Epidemiology of Food-borne Pathogens. *Clinical Microbiology Newsletter* 20:161–164.

13. Hudock, J., A. Borger, and C. W. Kaspar. 1998. Formation and characterization of the coccoid form of *Campylobacter jejuni*. FRI Newsletter 10(2):3.
14. Byrd, J. A., A. M. Cheville, J. L. Bose, and C. W. Kaspar. 1998. A byproduct of glucose heated in the presence of phosphate is lethal to *Escherichia coli* O157:H7. FRI Newsletter 10(3):1–2.
15. Shere, J. A., C. W. Kaspar, K. J. Bartlett, S. E. Ansay, B. Norell, and D. M. Schaefer. 1999. Waterborne and animal-to-animal transmission of *Escherichia coli* O157:H7 and subsequent shedding patterns in Holstein bull calves. FRI Newsletter 11(2):2–3.
16. Kaspar, C. W. 1999. Life in acid: What can we learn from bacteria that thrive in extreme environments? FRI Newsletter 11(3):2.
17. Kaspar, C. W. 2000. Contribution of *dps* to acid- and oxidative-stress tolerance in *Escherichia coli* O157:H7. FRI Newsletter 12(1):1.
18. Kaspar, C. W. 2000. Survival of *Campylobacter jejuni* — Influence of protection systems and lipids. FRI Newsletter 12(2):2.
19. Kaspar, C. W. 2000. *Alicyclobacillus*. FRI Newsletter 12(3):2.
20. Kaspar, C. W., M. Calicioglu, C. W. Kaspar, D. R. Buege, and J. B. Luchansky. 2001. Use of Tween 20 to potentiate the antimicrobial effects of lactic acid spraying on inoculated *Escherichia coli* O157:H7 and indigenous *Escherichia coli* biotype I on beef. FRI Newsletter 13(1):2.
21. Erol, I., C. W. Kaspar, and S. H. Choi. 2001. Phenotypic characterization of an *hns* mutant in *Escherichia coli* O157:H7. FRI Newsletter 13(3):1–2.
22. Bose, J. L., D. J. Baumler, C.-M. Chang, and C. W. Kaspar. 2001. TetA efflux pump causes a decrease in acid tolerance in *E. coli*. FRI Newsletter 13(3):3.
23. Kaspar, C. W. 2001. Expert panel on microbiological food safety – emerging pathogens, for the Institute of Food Technologists.
24. Kaspar, C. W. 2002. Waterborne dissemination of *Escherichia coli* O157:H7. FRI Newsletter 14(1):2.
25. Bose, J. L., A. E. Elsmann, and C. W. Kaspar. 2002. Use of enhanced yellow fluorescent protein to measure internal pH in *Escherichia coli*. FRI Newsletter 14(4):3.
26. Arthur, M. H. 2002. Emerging Microbiological Food Safety Issues, *Food Technology* 56:48-51.
27. Kaspar, C. W. 2003. Characterization of *Escherichia coli* O157:H7 from downer and healthy dairy cattle in the Upper Midwest Region of the United States. FRI Newsletter 15(1):2.
28. Hiki, O., and C. W. Kaspar. 2004. Fitness of dominant and variant strains of *Escherichia coli* O157:H7. FRI Newsletter 15(3):3.
29. Kaspar, C. W. 2004. Acid-loving archaea and what we can learn about acid-tolerant foodborne pathogens. FRI Newsletter 15(3): 3–4.

30. Kaspar, C. W. 2004. Gene regulation in *E. coli* O157:H7. FRI Newsletter 16(3):3.
31. Isaacson, R. E., M. Torrence, and M. R. Buckley. 2004. Preharvest Food Safety and Security. Report from a colloquium of the American Academy of Microbiology, Perthshire, Scotland.
32. Kaspar, C. W. 2005. *Alicyclobacillus* and juice spoilage. FRI Newsletter 17(1):1.
33. Hung, K. F., J. Stevens, and C. W. Kaspar. 2006. Development of an automated most-probable-number method for the enumeration of bacteria in food. FRI Newsletter 18(1):3.
34. Kaspar, C. W. 2006. A new place of residence for *E. coli* O157:H7. FRI Newsletter 18(2):1.
35. Jeong, K. C., K. F. Hung, J. J. Byrd, and C. W. Kaspar. 2007. Acidic pH promotes alpha helix formation in Dps resulting in the formation of Dps-DNA complexes that protect DNA from acid stress damage in *Escherichia coli* O157:H7. FRI Newsletter 19(1):2.
36. Baumler, D. J. and C. W. Kaspar. 2007. Morphology of the acidophilic archaeon "*Ferroplasma acidarmanu*" strain fer1. MicrobeLibrary.
37. Doyle, M. E., J. Archer, C. W. Kaspar, and R. Weiss. 2006. Human illness caused by *E. coli* O157:H7 from food and non-food sources. AMI-FRI briefings.
38. Doyle, M. E., C.W. Kaspar, J. Archer, and R. Klos. 2008. Human illness caused by *Salmonella* from all food and non-food vectors. AMI-FRI briefings.
39. Clearance of *E. coli* O157:H7 from cattle using chitosan. FRI Newsletter 21(1):2.
40. Kaspar, C. W., and M. E. Doyle. 2009. Non-O157 Shiga-toxigenic *Escherichia coli* from meat and non-meat sources. AMI, FRI briefings.

Abstracts

1. Mernaugh, R. L., C. W. Kaspar, D. P. Durand, J. H. Hill, and F. E. Jones. 1985. A simple, efficient standard-dilution method for cloning hybridomas. North Central Branch Meeting of the American Society of Microbiology, Ames, IA.
2. Kaspar, C. W., P. A. Hartman, and A. K. Benson. 1987. Coagglutination and enzyme capture tests for the detection of *Escherichia coli* b-galactosidase, b-glucuronidase, and glutamate decarboxylase. National Meeting of the American Society of Microbiology, Atlanta, GA.
3. Kaspar, C. W., P. B. Brayton, and R. R. Colwell. 1988. The morphological and physiological changes in starved *Escherichia coli* and *Vibrio cholerae*. National Meeting of the American Society of Microbiology, Miami, FL.
4. Kaspar, C. W., J. J. Byrd, K. E. Davis, M. L. Tamplin, and R. R. Colwell. 1989. Induction of b-galactosidase in viable but nonculturable *Escherichia coli* in estuarine and marine waters. National Meeting of the American Society of Microbiology, New Orleans, LA.
5. Kaspar, C. W., J. F. Hernandez, P. A. Hartman, and R. R. Colwell. 1989. A microtiter plate most-probable number test for the identification of *Escherichia coli* in estuarine and marine waters. National Meeting of the American Society of Microbiology, New Orleans, LA.

6. Kaspar, C. W., M. L. Tamplin, and A. L. Martin. 1990. The effects of temperature and salinity on the survival of *Vibrio vulnificus*. National Meeting of the American Society of Microbiology, Anaheim, CA.
7. Tamplin, M. L., A. L. Martin, G. M. Capers, R. A. Snyder, and C. W. Kaspar. 1990. The ecology of *Vibrio vulnificus* in the estuarine environment. National Meeting of the American Society of Microbiology, Anaheim, CA.
8. Kaspar, C. W. 1992. How to handle stress: the bacterial way. Food Research Institute Annual Meeting, Edgewater Hotel, Madison, WI.
9. Kaspar, C. W. 1993. The viable but nonculturable state in bacteria. Food Research Institute Annual Meeting, The Wisconsin Center, Madison, WI.
10. Harsono, K. D., C. W. Kaspar, and J. B. Luchansky. 1993. Comparison and genomic sizing of *Escherichia coli* O157:H7 isolates by pulsed-field gel electrophoresis. Food Research Institute Annual Meeting, The Wisconsin Center, Madison, WI.
11. Buchrieser, C., and C. W. Kaspar. 1993. An improved microscopic viable count suitable for study of bacterial pathogens in milk. Food Research Institute Annual Meeting, The Wisconsin Center, Madison, WI.
12. Degnan, A. J., S. Otwell, M. L. Tamplin, C. W. Kaspar, and J. B. Luchansky. 1993. Control of *Listeria monocytogenes* in blue crab meat using lactic acid bacteria fermentates. Third Joint Conference, Atlantic Fisheries Technology Conference and Tropical and Subtropical Fisheries Technological Conference of the Americas, Williamsburg, VA.
13. Ganger, V. V., R. L. Murphree, C. Buchrieser, C. W. Kaspar, V. Garrido, J. Simpson, R. J. Siebeling, and M. L. Tamplin. 1993. Biochemical, serological, and molecular characteristics of environmental and clinical *Vibrio vulnificus* strains. Third Joint Conference, Atlantic Fisheries Technology Conference and Tropical and Subtropical Fisheries Technological Conference of the Americas, Williamsburg, VA.
14. Buchrieser, C., V. V. Ganger, R. L. Murphee, M. L. Tamplin, and C. W. Kaspar. 1994. Genomic typing of *Vibrio vulnificus* using clamped homogeneous electric fields (CHEF) electrophoresis. National Meeting of the American Society for Microbiology, Las Vegas, NV.
15. Degnan, A. J., S. Otwell, M. L. Tamplin, C. W. Kaspar, and J. B. Luchansky. 1994. Evaluation of lactic acid bacteria fermentates and food grade antimicrobials to control *Listeria monocytogenes* in blue crab meat (*Callinectes sapidus*). Annual Meeting and Food Expo, Institute of Food Technologists, Atlanta, GA.
16. Gouveia, S., C. Buchrieser, and C. W. Kaspar. 1994. Characterization and genomic relatedness between phages from enterohemorrhagic and enteropathogenic *Escherichia coli*. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
17. Arnold, K. W., L. G. Miller, and C. W. Kaspar. 1994. Factors affecting acid tolerance in *Escherichia coli* O157:H7. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
18. Kaspar, C. W. 1994. Key survival and virulence properties of *Escherichia coli* O157:H7. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.

19. Buchrieser, C., V. Gaugar, R. Murphree, L. Miller, M. Tamplin, and C. W. Kaspar. 1994. Evidence of multiple *Vibrio vulnificus* clones in oysters as demonstrated by clamped homogeneous electric fields (CHEF) gel electrophoresis. Seventh International Congress of Bacteriology and Applied Microbiology Division, Seventh International Congress of Mycology Division. Prague, Czech Republic.
20. Kaspar, C. W.. 1995. Preharvest surveillance of *Escherichia coli* O157:H7. FRI/CALS Conference: Vision for Food Safety. The Wisconsin Center, Madison, WI.
21. Buchrieser, C., R. Brosch, J. B. Luchansky, and C. W. Kaspar. 1995. Investigation of epidemic *Salmonella enteritidis* involved in outbreaks from 1988–1993 by pulsed-field gel electrophoresis. Seventh European Congress of Clinical Microbiology and Infectious Diseases, Vienna, Austria.
22. Brosch, R., M. E. Proctor, J. W. Mellen, L. A. Garrett, C. W. Kaspar, and J. B. Luchansky. 1995. Use of pulsed-field gel electrophoresis to detect an outbreak of human listeriosis associated with recalled chocolate milk. Seventh European Congress of Clinical Microbiology and Infectious Diseases, Vienna, Austria.
23. Faith, N. G., J. Shere, K. Arnold, R. Brosch, S. Ansay, J. B. Luchansky, and C. W. Kaspar. 1995. Prevalence and clonal nature of *Escherichia coli* O157:H7 isolated on dairy farms in Wisconsin. National Meeting of the American Society for Microbiology, Washington, D.C.
24. Hudock, J., and C. W. Kaspar. 1995. Formation and characterization of the coccoid form of *Campylobacter jejuni*. Annual Meeting of the Food Research Institute. The Wisconsin Center, Madison, WI.
25. Sung, N., C. W. Kaspar, and M. T. Collins. 1995. Thermal resistance of *Mycobacterium paratuberculosis*. Conference of Research Workers in Animal Diseases. Ft. Collins, CO.
26. Faith, N. G., J. Shere, K. Arnold, R. Brosch, S. Ansay, J. B. Luchansky, and C. W. Kaspar. 1995. Prevalence and clonal nature of *Escherichia coli* O157:H7 isolated on dairy farms in Wisconsin. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, WI.
27. Cheville, A. M., and C. W. Kaspar. 1996. Enhanced substrate-accelerated death in a *rpoS* mutant of *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, WI.
28. Lee, M.-S., M. Proctor, S. Gouveia, J. B. Luchansky, and C. W. Kaspar. 1996. Pulsed-field analyses of serotype O157:H7 strains of *Escherichia coli* isolated in Wisconsin during 1994. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, WI.
29. Faith, N. G., J. Hinkens, T. D. Lorang, P. Bailey, D. Buege, C. W. Kaspar, and J. B. Luchansky. 1996. The fate of *Escherichia coli* O157:H7 in fermented meats. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, Wisconsin.
30. Kaspar, C. W., and J. B. Luchansky. 1996. Validation of processes for control of *Escherichia coli* O157:H7 in fermented sausage. Meeting of the International Association of Food and Environmental Sanitarians, Seattle, WA.

31. Cheville, A. M., and C. W. Kaspar. 1996. Enhanced substrate-accelerated death in a *rpoS* mutant of *Escherichia coli* O157:H7. National Meeting of the American Society for Microbiology, New Orleans, LA.
32. Lee, M.-S., M. Proctor, S. Gouveia, J. B. Luchansky, and C. W. Kaspar. 1996. Pulsed-field analyses of serotype O157:H7 strains of *Escherichia coli* isolated in Wisconsin during 1994. National Meeting of the American Society for Microbiology, New Orleans, LA.
33. Faith, N. G., J. Hinkens, T. D. Lorang, P. Bailey, D. Buege, C. W. Kaspar, and J. B. Luchansky. 1996. Process validation of pepperoni for control of *Escherichia coli* O157:H7. Meeting of the International Association of Food and Environmental Sanitarians, Seattle, WA.
34. Kaspar, C. W. 1996. Acid tolerance of *Escherichia coli* O157:H7. Annual Meeting of the Society of Industrial Microbiology, Research Triangle Park, NC.
35. Kaspar, C. W. 1996. *rpoS*-regulated resistance properties of *Escherichia coli* O157:H7. Southeastern Branch Meeting of the American Society for Microbiology, Gainesville, FL.
36. Ansay, S., K. Darling, and C. W. Kaspar. 1997. Survival of *Escherichia coli* O157:H7 in ground beef patties during frozen and refrigerated storage. National Meeting of the American Society for Microbiology, Miami, FL.
37. Borger, A., J. Hudock, and C. W. Kaspar. 1997. Examination of stress-protection systems in *Campylobacter jejuni*. National Meeting of the American Society for Microbiology, Miami, FL.
38. Kaspar, C. W. 1997. Approaches to controlling *E. coli* O157:H7 in ground beef. Food Research Institute Annual Meeting, The Wisconsin Center, Madison, WI.
39. Degnan, A., A. Ronner, B. Peterson, D. Baumler, C. Kaspar, A. Wong, and J. Luchansky. 1997. Influence of cheese variety and storage temperature on the survival of *Bacillus cereus*, *Escherichia coli*, and *Listeria monocytogenes* on processed cheese slices. Annual Meeting of the Institute of Food Technologists, Orlando, FL.
40. Ansay, S., K. Darling, and C. W. Kaspar. 1997. Survival of *Escherichia coli* O157:H7 in ground beef patties during frozen and refrigerated storage. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, WI.
41. Borger, A., J. Hudock, and C. W. Kaspar. 1997. Examination of stress-protection systems in *Campylobacter jejuni*. Annual Meeting of the Food Research Institute, The Wisconsin Center, Madison, WI.
42. Shere, J. A., K. J. Bartlett, and C. W. Kaspar. 1997. Longitudinal study of *E. coli* O157:H7 on four dairy farms in Wisconsin. Third International Symposium on "Shiga toxin (verotoxin)-producing *Escherichia coli* infections". Baltimore, MD.
43. Faith, N. G., N. Parniere, T. Larson, T. D. Lorang, C. W. Kaspar, and J. B. Luchansky. 1997. Viability of *Escherichia coli* O157:H7 during manufacture and drying of pepperoni sticks and storage of pepperoni slices at different temperatures (-20, 4, and 21°C) and under different atmospheres (CO₂, normal atmosphere, and vacuum). Annual Meeting of the Institute of Food Technologists, Orlando, FL.

44. Byrd, J. J., and C. W. Kaspar. 1998. Defining substrate-accelerated death: a product of autoclaved glucose kills an *rpoS* mutant of *Escherichia coli* O157:H7. National Meeting of the American Society for Microbiology, Atlanta, GA.
45. Hudock, J. F., A. C. Borger, and C. W. Kaspar. 1998. Formation and characterization of the coccoid form of *Campylobacter jejuni*. National Meeting of the American Society for Microbiology, Atlanta, GA.
46. Kaspar, C. W. 1998. *rpoS*-regulated, general stress protection system of *Escherichia coli* O157:H7. National Meeting of the American Society for Microbiology, Atlanta, GA.
47. Kaspar, C. W. 1998. *Campylobacter jejuni* dogma — Survival and sequelae. Annual Meeting of the Food Research Institute. The Wisconsin Center Guest House (Lowell Hall), Madison, WI.
48. Shere, J. A. K. J. Bartlett, and C. W. Kaspar. 1998. Longitudinal study of *Escherichia coli* O157:H7 dissemination on four dairy farms in Wisconsin. Annual Meeting of the Food Research Institute. The Wisconsin Center Guest House (Lowell Hall), Madison, WI.
49. Byrd, J. J. and C. W. Kaspar. 1998. A product of autoclaved reducing sugars kills an *rpoS* mutant of *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Wisconsin Center Guest House (Lowell Hall), Madison, WI.
50. Cheng, C. M., J. L. Bose, and C. W. Kaspar. 1999. Enhancement of acid tolerance by expression of a small basic peptide. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
51. Shere, J. A., C. W. Kaspar, K. J. Bartlett, S. E. Ansay, B. Norell, and D. M. Schaefer. 1999. Waterborne transmission and shedding of *E. coli* O157:H7 in dairy cattle. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
52. Choi, S. H., D. A. Baumler, and C. W. Kaspar. 2000. Contribution of *dps* to acid tolerance in *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
53. Baumler, D. J., J. L. Bose, and C. W. Kaspar. 2000. Enhancement of acid tolerance and stationary-phase stress tolerance in *Zymomonas mobilis*. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
54. Baumler, D. J., J. L. Bose, and C. W. Kaspar. 2000. Enhancement of acid tolerance and stationary-phase stress tolerance in *Zymomonas mobilis*. Annual Meeting of the Society for Industrial Microbiology. The Town & Country Hotel, San Diego, CA.
55. Calicioglu, M., N. G. Faith, D. R. Buege, S. C. Ingham, C. W. Kaspar, and J. B. Luchansky. 2000. Effect of lactic acid spraying on survival of *Escherichia coli* O157:H7 and *Escherichia coli* biotype 1 on beef carcasses. American Association of Meat Science, Columbus, OH.
56. Bose, J. L., D. J. Baumler, C.-M. Cheng, and C. W. Kaspar. 2001. TetA efflux pump causes a decrease in acid tolerance in *E. coli*. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.

57. Erol, I., C. W. Kaspar, and S. H. Choi. 2001. Phenotypic characterization of an *hns* mutant in *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
58. Bose, J. L., D. J. Baumler, C.-M. Cheng, and C. W. Kaspar. 2001. TetA efflux pump decreases acid tolerance in *E. coli*. Poster Q-113, National Meeting of the American Society for Microbiology, Orlando, FL.
59. Kaspar, C. W. 2001. *E. coli* O157:H7 update: progress and pitfalls. WAMFS, WEHA, WADPFR joint conference. Wisconsin Dells, WI.
60. Byrne, C., I. Erol, J. Call, D. Buege, C. W. Kaspar, C. Hiemke, P. Fedorka-Cray, J. Hermosillo, T. Ball, M. Wallace, M. Handy, and J. B. Luchansky. 2002. Genotypic variability and antibiotic resistance profiles of *Escherichia coli* O157:H7 isolates from downer and healthy dairy cattle. International Association of Food Protection. San Diego, CA.
61. Croft, D. R., J. Archer, C. M. Roberts, R. A. Johnson, T. Monson, D. Lucas, T. Kurzynski, D. Hoang-Johnson, L. Machmueller, L. Kelly, D. Crossfield, G. Rosario, C. Kaspar, J. A. Crump, and J. P. Davis. 2002. An outbreak of *Escherichia coli* O157:H7 infections associated with a pancake breakfast served in a stock pavilion with contaminated livestock bedding—Wisconsin, United States of America, 2001. TEPHINET Conference (Training programs in Epidemiology and Public Health Intervention network).
62. Jeong, K., C. W. Kaspar, and S. Choi. 2002. Transcriptional and translational regulation of *dps* expression in *Escherichia coli* O157:H7. National Meeting of the American Society for Microbiology. Salt Lake City, UT.
63. Bose, J. L., and C. W. Kaspar. 2002. Tetracycline causes acid-sensitivity in stationary-phase *E. coli* containing *tetA* or *tetO* by reducing protein synthesis. National Meeting of the American Society for Microbiology. Salt Lake City, UT.
64. Macalady, J., L. Croft, M. Vestling, A. Harms, L. Zheng, A. Barry, D. Baumler, C. Kaspar, B. Fox, and J. Banfield. 2002. Tetraether-linked membrane lipids are essential for arachaeal life in acid. National Meeting of the American Society for Microbiology. Salt Lake City, UT.
65. Erol, I., C. W. Kaspar, and S. Choi. 2002. Phenotypic characterization of an *Escherichia coli* O157:H7 *hns* mutant. National Meeting of the American Society for Microbiology. Salt Lake City, UT.
66. Jeong, K.-C., C. W. Kaspar, and S.-H. Choi. 2002. Transcriptional and translational regulation of *dps* expression in *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
67. Bose, J. L., A. Elsmann, and C. W. Kaspar. 2002. Use of enhanced yellow fluorescent protein to measure internal pH in *Escherichia coli*. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
68. Croft, L., A. Barry, P. Predki, S. Stilwagen, G. Johnson, T. M. Gihring, B. J. Baker, J. Macalady, G. F. Mayhew, V. Burland, T. Janecki, C. W. Kaspar, B. Fox, and J. F. Banfield. 2002. The genome of *Ferroplasma acidarmanus*: Clues to life in acid. DOE Genome Contractor-Grantee Workshop IX, Oakland, CA.

69. Baumler, D. J., J. F. Banfield, B. G. Fox, and C. W. Kaspar. 2003. Characterization of growth and substrate utilization by the acidophilic archaeon *Ferroplasma acidarmanus*. National Meeting of the American Society for Microbiology, Washington, D.C. I-120.
70. Jeong, K., O. Hiki, and C. W. Kaspar. 2003. Localization and acid tolerance associated with Dps in *Escherichia coli* O157:H7. National meeting of the American Society for Microbiology, Washington, D.C. K-045.
71. Hiki, O., R. M. Conway, I. Erol, C. Hiemke, J. A. Shere, B. Vykhodets, and C. W. Kaspar. 2003. Persistence of dominant and variant *Escherichia coli* O157:H7 strains in dairy cattle is a function of the growth and survival properties. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
72. Jeong, K.-C., D. Baumler, and C. W. Kaspar. 2003. Localization and acid tolerance associated with Dps in *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
73. Byrne, C. M., I. Erol, J. E. Call, C. W. Kaspar, D. R. Buege, C. J. Hiemke, P. Fedorka-Cray, A. K. Benson, F. M. Wallace, and J. B. Luchansky. 2003. Characterization of *Escherichia coli* O157:H7 from downer and healthy dairy cattle in the Upper Midwest region of the United States. ARS-NAFS Mini-Symposium. New Orleans, Louisiana.
74. Kaspar, C. W., O. Hiki, R. M. Conway, I. Erol, C. Hiemke, and J. A. Shere. 2003. Linking *Escherichia coli* O157:H7 clonal turnover with possible control strategies. The Second Governor's Conference on Ensuring Meat Safety: *E. coli* O157:H7 Progress and Challenges. Embassy Suites Hotel, Lincoln, Nebraska.
75. Kaspar, C. W. 2004. Targets to control *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
76. Jeong, K.-C., C.-M. Cheng, and C. W. Kaspar. 2004. Contribution of *dps* to acid stress tolerance in *Escherichia coli* O157:H7. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
77. Kaspar, C. W., Jeong, K.-C., M.-Y. Kang, B. Vykodets, and C. Hiemke. 2004. The use of egg yolk anti-O157:H7 immunoglobulin to clear *E. coli* O157:H7 from the intestinal tracts of cattle. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
78. Byrd, J.J., K. F. Hung, and C. W. Kaspar. 2005. Alleviation of tetracycline-mediated acid sensitivity in TetR *Escherichia coli*. National Meeting of the American Society for Microbiology, Atlanta, GA. K-070.
79. Jeong, K.C., J. J. Byrd, K. Hung, D. J. Baumler, and C. W. Kaspar. 2005. Dps protects DNA against low pH by formation of Dps-DNA complexes. National Meeting of the American Society for Microbiology, Atlanta, GA.
80. Hung, K. F., J. Stevens, and C. W. Kaspar. 2005. Automated most probable number enumeration of microbial content in food. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.

81. Kaspar, C. W. 2005. Antimicrobial properties of a heat-and phosphate-generated glucose byproduct and other new antimicrobials. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
82. Hung, K. F., E. B. Somers, M. Kwamin, A. C. Wong, and C. W. Kaspar. 2006. Isolation, identification, and phenotypic characterization of a polyextremophilic fungus. National meeting of the American Society for Microbiology, Orlando, FL.
83. Baumler, D. J., K. F. Hung, and C. W. Kaspar. 2006. Identification of the precursors for production of methanethiol by the acidophilic archaeon "*Ferroplasma acidarmanus*" strain fer1. National Meeting of the American Society for Microbiology, Orlando, FL.
84. Dutilly, D. K., K. F. Hung, J. Stevens, and C. W. Kaspar. 2006. Automated most-probable-number enumeration of microbial content in food. AOAC. Madison, WI.
85. Dutilly, D. K., K. F. Hung, J. Stevens, and C. W. Kaspar. 2006. Automated most-probable-number enumeration of microbial content in food. Biomedical Research Conference for Minority Students, San Diego, CA.
86. Kaspar, C. W. 2007. From mines to manure. Bacteriology Department retreat. Madison, WI.
87. Kaspar, C. W. 2007. How did that spoil? A brief review of microbial diversity and ecology. FRI symposium on "Microbial Food Spoilage- losses and control strategies". The Pyle Center, Madison, WI.
88. Kaspar, C. W. 2007. Chitosan feeding reduces the shedding of *E. coli* O157:H7 in cattle. Scientific Affairs Advisory Committee of the American Meat Institute meeting. Microbial Sciences Building, Madison, WI.
89. Kaspar, C. W. 2007. How safe is our food? UW-Microbial Sciences Building dedication symposium. Madison, WI.
90. Kaspar, C. W. 2008. Effects of sodium vs other salts on microbial ecology/safety. FRI symposium on "Sodium Reduction and its Effects on Food Safety, Food Quality, and Human Health". The Pyle Center, Madison, WI.
91. Kaspar, C. W. 2008. Genomics meets physiology: What have genomics taught us about the effects of growth phase and stress exposure on bacterial physiology? ILSI North America Symposium Series, international Association of Food Protection annual meeting, Columbus, OH
92. Munoz, M.M.L., K. F. Hung, and C. W. Kaspar. 2008. Cloning of methionine lyase homologs from the acidophilic archaeon, *Ferroplasma acidarmanus*. Annual Biomedical Research Conference for Minority Students, San Diego, CA
93. Jeong, Kwang Cheol, M. Y. Kang, J.-H. Kang, and C. W. Kaspar. 2009. Chitosan-amended feed reduces shedding of *Escherichia coli* O157:H7 in dairy cattle. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
94. Stackhouse, R., N. Faith, C. Kaspar, C. Czuprynski, and A. Wong. 2009. Formation, survival, and virulence of stress-induced filamentous *Salmonella*. Raper Symposium, University of Wisconsin, Madison, WI

95. Jeong, Kwang Cheol, M. Y. Kang, J.-H. Kang, and C. W. Kaspar. 2009. Chitosan-amended feed reduces shedding of *Escherichia coli* O157:H7 in dairy cattle. Raper Symposium, University of Wisconsin, Madison, WI
96. Whitmarsh, R. and C. W. Kaspar. 2009. Desiccation tolerance in *Salmonella*. REU-Microbiology Research Symposium. University of Wisconsin, Madison, WI.
97. Kaspar, C. W. 2009. Today's microbial challenges- a case study. The 7th Annual Symposium Sponsored by Covance Laboratories and the UW Food Research Institute. Covance Laboratories, Madison, WI.
98. Kaspar, C. W., A.C.L. Wong, and C. Czuprynski. 2010. Contamination of fruits, nuts, and vegetables by filamentous *Salmonella*; persistence and virulence. Joint meeting of NRI, AFRI award and IFT annual meeting, Chicago, IL.
99. Jayaraman, D., J.D. Barak, E.W. Brown, C. W. Kaspar, and J-M. Ane. 2010. *Medicago truncatula* as a model for studying the genetic basis of plant interactions with *E. coli* O157:H7 and *Salmonella*. American Society of Plant Biology, Montreal, Canada.
100. Mand, T., J. Kang, and C. W. Kaspar. 2010. Acid and desiccation tolerance among non-O157 Shiga-toxin producing *E. coli* (STEC). Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
101. Park, D. and C. W. Kaspar. 2010. Characterization of enterohemorrhagic *Escherichia coli* O157 strains by PCR-based chromosomal scanning and fluorescent in situ hybridization. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
102. Glass, K. A., C. W. Kaspar, J. Sindelar, A. Milkowski, B. Lotz, J. Kang, T. Mand, N. Faith, E. Enache, A. Kataoka, and C. Henry. 2010. Validation of Pepperoni Process for Control of Shiga-Toxin Producing *Escherichia coli* (STEC). Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
103. Yang, K., R. Stackhouse, C. W. Kaspar, C. J. Czuprynski, and A. C. L. Wong. 2010. Filamentation of *Listeria monocytogenes* strain scott A and survival of filaments under conditions of environmental stress. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
104. Whitmarsh, R., Aaron Gnas, and C. W. Kaspar. 2010. Desiccation tolerance in *Salmonella*. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
105. Kaspar, C. W. 2010. Non-O157 Shiga toxin-producing *E. coli* (STEC): current knowledge on relative virulence, transmission, and stability in foods. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
106. King, A. M., R. R. Stackhouse, C. W. Kaspar, C. J. Czuprynski, and A. C. L. Wong. 2010. Filament formation and survival of *Salmonella enterica* serovar Typhimurium strain M-09-0001A-1 in stressful conditions. Food Research Institute Annual Meeting, University of Wisconsin, Madison, WI
107. Parrell, D. and C. W. Kaspar. 2010. Morphological analysis of an acidophilic *Bispora* sp. and its bacterial symbiont. UW-Madison Undergraduate Research Symposium, Madison, WI.

108. Durden, L., T. Mand, and C.W. Kaspar. 2010. Growth and survival of various *Escherichia coli* strains in acidic pH levels. REU- Microbiology Research Symposium, Madison, WI.
109. Whitemarsh, R., Aaron Gnas, and C. W. Kaspar. 2010. Desiccation tolerance in *Salmonella*. International Association of Food Protection, Anaheim, CA.
110. Stackhouse, R., N. Faith, C. Kaspar, C. Czuprynski, and A. Wong. 2010. Filamentous *Salmonella*: Formation, Survival, and Virulence. International Association of Food Protection, Anaheim, CA
111. Glass, K.A., C.W. Kaspar, J.J. Sindelar, A. Milkowski, B.M. Lotz, J. Kang, T. Mand, N.G. Faith, E. Enache, A. Kataoka, and C. Henry. 2010. Validation of Pepperoni Process for Control of Shiga-Toxin Producing *Escherichia coli*. International Association of Food Protection, Anaheim, CA
112. Mand, T., J. Kang, and C. W. Kaspar. 2010. Acid and desiccation tolerance among non-O157 Shiga-toxin producing *E. coli* (STEC). Kenneth B. Raper Symposium, University of Wisconsin, Madison, WI
113. Gautam, R., M. Bani-Yaghoub, W. H. Neill, D. Dopfer, C. W. Kaspar, and R. Ivanek. 2010. Modeling effect of ambient temperature on pathogen population dynamics and infection transmission in dairy cattle. Investigative Workshop Mathematical Modeling of Wildlife and Viruses Zoonoses. Univ. of Tennessee, Knoxville, TN
114. Bani-Yaghoub, M., R. Gautam, D. Dopfer, C. W. Kaspar, and R. Ivanek. 2010. Environmental decontamination and control of infectious diseases: An SIS model. Investigative Workshop Mathematical Modleing of Wildlife and Viruses Zoonoses. Univ. of Tennessee, Knoxville, TN
115. Gautnam, R., R. Ivanek, M. Bani_Yaghoub, W. H. Neil, D. Dopfer, and C. W. Kaspar. 2011. Mathematical modeling of host, pathogen and environmental factors in infection transmission: an example of *Escherichia coli* O157:H7 spread in a cattle herd under time-varying ambient temperature conditions. NSF, PI meeting on Ecology of Infectious Disease, Madison, WI.
116. Kulow, M., D. Dopfer, C. W. Kaspar, R. Ivanek, D.-J. Park, T. Gonzales, K. Pertzborn, J. Dahm, K. Anklam, R. Gautam, and M. Bani-Yaghoub. 2011. Rapid molecular characterization of pathogens characterized with genotype dependent pathogen-host interaction, including pathogen virulence and pathogenicity. NSF, PI meeting on Evolution and Ecology of Infectious Disease, Madison, WI.
117. Parrell, D., and C. W. Kaspar. 2011. Conditions affecting sporulation and hyphal exudate/condensate in an acidophilic *Bispora* sp. and its bacterial symbiont. UW-Madison Undergraduate Research Symposium, Madison, WI.
118. Stackhouse, R., K. Yang, C. W. Kaspar, C. J. Czuprynski, and A. C. L. Wong. 2011. Formation and survival of stress-induced filaments by *Listeria monocytogenes*. International Association of Food Protection, Milwaukee, WI
119. Kaspar, C. W., A.C.L. Wong, and C. Czuprynski. 2011. Contamination of fruits, nuts, and vegetables by filamentous *Salmonella*; persistence and virulence. Joint meeting of NRI, AFRI award and IAFP annual meeting, Milwaukee, WI.
120. Kaspar, C. W. 2011. Desiccation tolerance in *Salmonella* serovars. Food Research Institute Spring Meeting, Pyle Center, Madison, WI.

121. Kulow, M., D. Dopfer, C. W. Kaspar, R. Ivanek, D.-J. Park, T. Gonzales, K. Pertzborn, J. Dahm, K. Anklam, R. Gautam, and M. Bani-Yaghoub. 2011. Rapid molecular characterization of pathogens, their virulence markers and interactions with the host. Food Research Institute Spring Meeting, Pyle Center, Madison, WI.
122. Stackhouse, R., K. Yang, C. W. Kaspar, C. J. Czuprynski, and A. C. L. Wong. 2011. Formation and survival of stress-induced filaments by *Listeria monocytogenes*. Food Research Institute Spring Meeting, Pyle Center, Madison, WI.
123. Stanton, E., D. Park, M. Bozle, D. Parrell, D. Dopfer, H. Piontkivska, and C. W. Kaspar. 2011. Genomes in a Genome. Who is Driving? The role of Prophage in Genetic Diversification of *Escherichia coli* O157:H7. Kenneth B. Raper Symposium, Madison, WI.
124. Shiroda, M., C. W. Kaspar, and Zachary Pratt. 2011. RpoS contribution to growth and survival of *Salmonella* serovars under desiccation conditions. Food Research Institute Spring Meeting, Pyle Center, Madison, WI.
125. Pratt, Z.L., B. Chen, B. Gietman, C.W. Kaspar, and A.C.L. Wong. 2011. Molecular characterization of filaments of *Salmonella* formed during growth on media with reduced water activity. Kenneth B. Raper Symposium, University of Wisconsin-Madison, Madison, WI.
126. Park, D., M. Bozle, D. Parrell, D. Dopfer, H. Piontkivska, and C. W. Kaspar. 2011. Genomes in a Genome. Who is Driving? The role of Prophage in Genetic Diversification of *Escherichia coli* O157:H7. Molecular Genetics of Bacteria and Phages Meeting, Madison, WI.
127. Gautam, R., D. Dopfer, C. W. Kaspar, M. Kulow, T. K. Gonzales, K. M. Pertzborn, R. J. Carroll, W. E. Grant, and R. Ivanek. 2011. Multistate Markov chain model to describe and compare fecal shedding dynamics of three *Escherichia coli* O157:H7 strains in cattle. Conference of Research Workers in Animal Diseases. Chicago, IL.
128. Javaraman, D., E. Brown, C. W. Kaspar, and J.-M. Ane. 2011. *Medicago truncatula* as a model for studying the genetic basis of plant interactions with *E. coli* O157:H7 and *Salmonella*. Kenneth B. Raper Symposium, Madison, WI.
129. Shiroda, M., Z. Pratt, and C. W. Kaspar. 2011. RpoS contribution to growth and survival of *Salmonella* serovars under desiccation conditions. Kenneth B. Raper Symposium, Madison, WI.
130. Stasic, A.J., A.C.L. Wong, and C. W. Kaspar. 2011. Survival of *Escherichia coli* O157:H7 in low water activity. Kenneth B. Raper Symposium, Madison, WI.
131. Oh M., M.Y. Kang, C.W. Kaspar, and K.C. Jeong. 2011. Understanding the molecular mechanism of Chitosan Microparticles to reduce *Escherichia coli* O157:H7 shedding in cattle. 97th Annual meeting of the Southeastern Branch of the American Society for Microbiology. Gainesville, FL
132. Pratt, Z.L., B. Chen, B.T. Gietman, A.C.L. Wong, and C.W. Kaspar. 2012. Characterization of Osmotic-induced Filaments of *Salmonella enterica*. American Society for Microbiology General Meeting, San Francisco, CA.
133. Shiroda, M., Z.L. Pratt, and C.W. Kaspar. 2012. Contribution of RpoS to Growth and Survival of salmonellae during Osmotic Stress. American Society for Microbiology General Meeting, San Francisco, CA.

134. Gietman, B., Z.L. Pratt, A.C.L. Wong, and C.W. Kaspar. 2012. Filamentous *Salmonella enterica* formed during osmotic stress undergo changes to nucleoid morphology and ATP generation over time. Food Research Institute Spring Meeting, Madison, WI.
135. Chen, B., Z.L. Pratt, C.W. Kaspar, and A.C.L. Wong. 2012. Levels of ATP in Osmotic-induced Filaments of *Salmonella enterica* are Greater than in Non-filaments Despite Reduced Levels of Succinate Dehydrogenase. Food Research Institute Spring Meeting, Madison, WI.
136. Tsarouha, J., N. Faith, C. W. Kaspar, A. Wong, and C. Czuprynski. 2012. Motility of filamentous cells of *Salmonella enterica* serovar Enteritidis E40. Food Research Institute Spring Meeting, Madison, WI.
137. Dongjin Park, Matthew Bozile, Eliot Stanton, Daniel Parrell, Daniel Pike, Kristin Ciezki, Kwang-Chul Jeong, Steven A. Forst, Dörte Döpfer, Charles W. Kaspar. 2012. Characterization of natural variants of *E. coli* O157:H7 impaired with Shiga toxin 2 production and their prevalence in bovine host reservoir. FRI Annual Meeting, Madison, WI.
138. Chen, B., Z.L. Pratt, C.W. Kaspar, and A.C.L. Wong. 2012. Enumeration of Filamentous *Salmonella* and its detection on low- a_w Food Items. University of Wisconsin-Madison Undergraduate Symposium, Madison, WI.
139. Kulow, M. J., T. K. Gonzales, K. M. Pertzborn, D. Park, R. Gautam, R. Ivanek, C. W. Kaspar, and D. Döpfer. 2012. Rapid molecular characterization of EHEC, their virulence markers and interactions with the bovine host. VTEC, Amsterdam, Netherlands.
140. Oh M., M. Y. Kang, D. Park, C. W. Kaspar, K. Han, M. C. Prosperi, M. Salemi, and K.C. Jeong. 2012. DNA sequencing reveals genetic traits that affect survival and persistence of *E. coli* O157:H7. VTEC, Amsterdam, Netherlands.
141. Oh M., M. Y. Kang, D. Park, C. W. Kaspar, K. Han, M. C. Prosperi, M. Salemi, and K.C. Jeong. 2012. A whole genome DNA sequencing reveals genetic traits that affect survival and persistence of *Escherichia coli* O157:H7 in cattle. 10th Annual Research Symposium, Animal Molecular and Cellular Biology Graduate Program, University of Florida, St. Augustine, FL
142. Oh M., M. Y. Kang, D. Park, C. W. Kaspar, K. Han, M. C. Prosperi, M. Salemi, and K.C. Jeong. 2012. A whole genome DNA sequencing reveals genetic traits that affect survival and persistence of *Escherichia coli* O157:H7 in cattle. 10th Annual Research Symposium, Animal Molecular and Cellular Biology Graduate Program, University of Florida, St. Augustine, FA.
143. Yang, K., D. J. Park, C. W. Kaspar, and A. C. L. Wong. 2012. Characterization of putative RpoS-regulated outer membrane proteins Slp and OmpX in *Escherichia coli* O157:H7. UW-Madison Undergraduate Research Symposium, Madison, WI.
144. Faith, M., J. Tsarouha, C. W. Kaspar, A. Wong, and C. Czuprynski. 2012. Motility of filamentous cells of *Salmonella enteritidis* E40. Annual Meeting of the International Association of Food Protection, Providence, RI
145. Kaspar, C. W. 2012. Challenges with Shiga toxin-producing *Escherichia coli* (STEC). Convance and Food Research Institute joint meeting on Relevant Regulatory and Analytical Solutions for Food and Dietary Supplements, Madison, WI.
146. Shiroda, M., Z. Pratt, and C. W. Kaspar. 2012. Contribution of RpoS to growth and survival of

- salmonellae during osmotic stress. Kenneth B. Raper Symposium, Madison, WI.
147. Stanton, E., D. Park, K. Ciezki, S. Forst, and C.W. Kaspar. 2012. First-time induction and characterization of a bacteriophage-encoding TccP, Tir-cytoskeleton coupling protein, from *Escherichia coli* O157:H7. Kenneth B. Raper Symposium, Madison, WI.
 148. Stasic, A.J., A.C.L. Wong, and C. W. Kaspar. 2012. Osmotic and desiccation tolerance in *Escherichia coli* O157:H7 requires *rpoS* (σ^{38}). Kenneth B. Raper Symposium, Madison, WI.
 149. Yang, A., D. Park, and C.W. Kaspar. 2012. Tails of host adaptation in Enterohemorrhagic *Escherichia coli* O157:H7: the locus of enterocyte effacement (LEE) type III secretion system and TccP, an actin assembly effector. . Kenneth B. Raper Symposium, Madison, WI.
 150. Martell, G., K. Yang, A. Yang, D. Park, A. Wong, and C.W. Kaspar. 2012. The locus *slp-yhiF* encoding carbon starvation lipoprotein and a putative regulator is essential for acid tolerance of enterohemorrhagic *Escherichia coli* O157:H7. Kenneth B. Raper Symposium, Madison, WI.
 151. Gietman, B., Z.L. Pratt, A.C.L. Wong, and C.W. Kaspar. 2012. Filamentous *Salmonella enterica* formed during osmotic stress undergo changes to nucleoid morphology and ATP generation over time. Kenneth B. Raper Symposium, Madison, WI.
 152. Chen, B., Z. Pratt, C. W. Kaspar, and A. C. L. Wong. 2012. Detection of filamentous Salmonella on low-aw food items and enumeration method of filamentous Salmonella. UW-Madison Undergraduate Research Symposium, Madison, WI.
 153. Stasic, A.J., A.C.L. Wong, and CW. Kaspar. 2013. Osmotic and dessication tolerance in *Escherichia coli* O157:H7 requires *rpoS* (σ^{38}). Food Research Institute Spring Meeting, Madison, WI.
 154. Stanton, E., D. Park, and C. W. Kaspar. 2013. Molecular subtyping of *Escherichia coli* O157:H7 using IS629 polymorphisms. Food Research Institute Spring Meeting, Madison, WI.
 155. Tsarouha, J., N. Faith, C. W. Kaspar, A. Wong, and C. J. Czuprynski. 2013. Motility of filamentous cells of *Salmonella enterica* serovars and invasion of RAW 264.7 macrophages. Food Research Institute Spring Meeting, Madison, WI.
 156. Shiroda, M., Z. Pratt, and C. W. Kaspar. 2013. RpoS-dependent survival and growth of *Salmonella enterica* during osmotic stress. Food Research Institute Spring Meeting, Madison, WI.
 157. Borchardt, T., Z. Pratt, C. W. Kaspar, and A. Wong. 2013. Oxidative stress observed in *Salmonella enterica* grown in hyperosmotic conditions. Food Research Institute Spring Meeting, Madison, WI.
 158. Lensmire, J., Z. Pratt, and C.W. Kaspar. 2013. Involvement of ROS scavenging enzymes in *Salmonella enterica* survival in hyperosmotic conditions. 2013. Kenneth B. Raper Symposium, Madison, WI.
 159. Pratt, Z., R. Stackhouse, N. Faith, A. Wong, C. Czuprynski, and C. W. Kaspar. 2013. Formation, survival, and virulence of stress-induced filamentous *Salmonella enterica*. Joint meeting of NRI, AFRI award and IAFP annual meeting, Charolette, NC.
 160. Stanton, E., D. Park, and C. W. Kaspar. 2014. Genome alterations in a chronological collection of *Escherichia coli* O157:H7 cattle isolates from a Wisconsin dairy farm. Phage meeting, Madison, WI

161. Evans, T., E. Stanton, D. Park, and C. W. Kaspar. 2014. Changes in prophage and IS629 targets in *E. coli* O157:H7 during a simulated transmission cycle. Food Research Institute Annual Meeting, Madison, WI.
162. Stanton, E., D. Park, and C. W. Kaspar. 2015. Prophage alterations in a chronological collection of *Escherichia coli* O157:H7 cattle isolates from a Wisconsin dairy farm. Food Research Institute Annual Meeting, Madison, WI
163. Lensmire, J., Z. Pratt, and C.W. Kaspar. 2015. Role of phosphate in the hyperosmotic induced filamentous state of *Salmonella enterica*. Food Research Institute Annual Meeting, Madison, WI.
164. Seenivasan, R., E. Stanton, C.W. Kaspar, and S. Gunasekaran. 2015. Electrochemical aptasensor-based detection of *E. coli*. Nanoscale Science and Engineering for Agriculture and Food Systems Gordan Conference. Waltham, MA.
165. Stanton, E., and C. W. Kaspar. 2015. Characterization of genome sequence homology in enterohemorrhagic *E. coli*. Molecular Genetics of Bacteria and Phages Meeting, Madison, WI.
166. Wahlig, T., J. Lensmire, E. Stanton, A.J. Stasic, and C.W. Kaspar. 2016. CrI, a regulatory protein, restores bile salts tolerance in a sub-population of *Salmonella enterica* cells. Kenneth B. Raper Symposium, Madison, WI.
167. Wahlig, T., J. Lensmire, E. Stanton, A.J. Stasic, and C.W. Kaspar. 2016. CrI, a regulatory protein, restores bile salts tolerance in a sub-population of *Salmonella enterica* cells. Food Research Annual Meeting, Madison, WI.
168. Lensmire, J., Z. Pratt, A.C.L. Wong, and C.W. Kaspar. 2016. Interplay between RpoS, PO₄ and formation of filamentous *Salmonella* in hyperosmotic conditions. Food Research Annual Meeting, Madison, WI.
169. Wahlig, T., E. Stanton, H. Malecki, D. Docter, A.J. Stasic, and C.W. Kaspar. 2017. Differences in ECM production as a potential driver of bile salts tolerance in a phenotypically heterogeneous *Salmonella enterica* population. Kenneth B. Raper Symposium, Madison, WI.
170. Kaspar, C.W. 2017. Desiccation tolerance in *Salmonella enterica*. Food Research Annual Meeting, Madison, WI.
171. Baldwin, E., K. Glass, and C.W. Kaspar. 2017. Metagenomic evaluation of spoilage bacteria in sous vide, refrigerated vegetables. Food Research Annual Meeting, Madison, WI.
172. Wahlig, T., E. Stanton, H. Malecki, A. Docter, A.J. Stasic, A.C.L. Wong, and C.W. Kaspar. 2017. Differences in ECM production as a potential driver of bile salts tolerance in a phenotypically heterogeneous *Salmonella enterica* population. Food Research Annual Meeting, Madison, WI.
173. Kaspar, C.W. 2017. Population heterogeneity in clonal populations of *Salmonella enterica*. ASM North Central Branch Meeting, DePere, WI.
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Invited presentations

1. Bacterial starvation: responses and significance. 1989. Southeastern and South Central Branch Meeting of the American Society of Microbiology, Gulf Shores, AL.
2. How to handle stress: the bacterial way. 1992. Food Research Institute Annual Meeting. Concourse Hotel, Madison, WI.
3. The viable but nonculturable state in bacteria. 1992. Wisconsin Institute of Food Technologists. Holiday Inn—East Towne, Madison, WI.
4. Setting up an environmental monitoring system and the use of rapid methods of pathogen detection. 1993. Cheese Research and Technology Conference. Holiday Inn—West Towne, Madison, WI.
5. The viable but nonculturable state in bacteria. 1993. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
6. Characterization of survival in *Escherichia coli*. 1993. Department of Food Science, University of Wisconsin—Madison. Madison, WI.
7. Epidemiology of *Escherichia coli* O157:H7. 1993. Wisconsin Department of Agriculture, Trade and Consumer Protection. Madison, WI.
8. From apple cider to ground beef—tracking *Escherichia coli* O157:H7. 1994. Agriculture and Agri-Food Canada, Center for Food and Animal Research. Ottawa, Ontario, Canada.
9. Key survival and virulence properties of *Escherichia coli* O157:H7. 1994. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
10. The use of pulsed-field gel electrophoresis to type and monitor *Escherichia coli* O157:H7. 1994. USDA, APHIS, Center for Epidemiology and Animal Health. Fort Collins, CO.
11. Preharvest surveillance of *Escherichia coli* O157:H7. 1995. FRI/CALS, Conference: Vision for Food Safety. The Wisconsin Center, Madison, WI.
12. From pen to plate: tracking *Escherichia coli* O157:H7. 1995. University of Florida, Gainesville, FL.
13. *Escherichia coli* O157:H7—a search for its niche. 1995. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
14. Environmental surveys for *Escherichia coli* O157:H7. 1995. Center for Dairy Research. UW Memorial Union, Madison, WI.
15. Validation of processes for control of *Escherichia coli* O157:H7 in fermented sausage. 1996. Meeting of the International Association of Food and Environmental Sanitarians, Seattle, WA.
16. *rpoS* — a possible target for control of *Escherichia coli* O157:H7. 1996. Food Research Institute Annual Meeting. The Wisconsin Center, Madison, WI.
17. Acid tolerance of *Escherichia coli* O157:H7. 1996. Society for Industrial Microbiology. Research Triangle Park, NC.

18. Dissemination of *Escherichia coli* O157:H7 among dairy cattle — sources and control. 1996. Wisconsin Beef Council, Madison, WI.
19. *rpoS*-regulated resistance properties of *Escherichia coli* O157:H7. 1996. Southeastern Branch Meeting of the American Society for Microbiology. Gainesville, FL.
20. Stress protection systems in *Escherichia coli*. 1996. National Renewable Energy Research Laboratory, Golden, CO.
21. Approaches to controlling *Escherichia coli* O157:H7 in ground beef. 1997. Food Research Institute Annual Meeting, The Wisconsin Center, Madison, WI.
22. Secure food production and delivery as related to pathogenic *Escherichia coli*. 1997. National Farm Bureau, Madison, WI.
23. Longitudinal study of *Escherichia coli* O157:H7 on four dairy farms in Wisconsin. 1997. Third International Symposium on “Shiga toxin (verotoxin)-producing *Escherichia coli* infections. Baltimore, MD.
24. A comparison of stress-protection systems in *Escherichia coli* and *Campylobacter jejuni*. 1997. Food Research Institute seminar series. Madison, WI.
25. Emerging foodborne pathogens. 1997. Doskocil Inc. Madison, WI.
26. *Escherichia coli* O157:H7—update. 1997. Kalsec Inc. Kalamazoo, MI.
27. Update on *Escherichia coli* O157:H7 and emerging foodborne pathogens. 1997. Cargill Inc. Madison, WI.
28. Dissemination of *Escherichia coli* O157:H7 among dairy cattle – sources and control. 1997. Wisconsin Beef Council, Madison, WI.
29. *Escherichia coli* O157:H7: Epidemiology and dissemination at the dairy cattle production level. 1997. USDA, Animal, Plant, Health Inspection Service (APHIS), Washington, D.C.
30. Environmental origins of foodborne diseases—*Escherichia coli* O157:H7. 1997. Judith Klusman and delegation of Russian dairy farmers. Madison, WI.
31. *rpoS* in *Escherichia coli* O157:H7, a target for control. 1997. Food Microbiology Research Conference. Chicago, IL.
32. Horizontal and waterborne dissemination of *Escherichia coli* O157:H7. 1997. National Cattlemen’s Association, Wisconsin Beef Council. Madison, WI.
33. Enhancement of acid tolerance in *Zymomonas mobilis*. 1998. National Renewable Energy Laboratory (NREL). Golden, CO.
34. *rpoS*-regulated, general stress protection system of *Escherichia coli* O157:H7. 1998. National Meeting of the American Society for Microbiology, Atlanta, GA.
35. *Campylobacter jejuni* dogma — Survival and sequelae. 1998.

36. Trace-back strategies using genetic fingerprinting. 1998. Governor's Conference on Ensuring Meat Safety. Lincoln, NE.
37. *E. coli* at the farm level. 1998. Winter Ag Expo. Middleton, WI.
38. *E. coli* acid tolerance and survival in apple juice. 1998. International Meeting of the American Society of Horticultural Science, Charlotte, NC.
39. Tracking *E. coli* O157:H7 from farm to fork. 1998. Visiting Scholar Lecture. Eastern Illinois University, Charleston, IL.
40. Role of contaminated water in transmission and shedding of *Escherichia coli* O157:H7 in dairy cattle. 1999. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
41. *Escherichia coli* O157:H7 — how do you spell relief? 1999. South Eastern branch of the American Society of Microbiology. Jekyll Island, GA.
42. Waterborne dissemination of *Escherichia coli* O157:H7. 1999. FDA/FSI Extramural Research Review. College Park, MD.
43. *Escherichia coli* O157:H7 — the general stress protection system and acid tolerance. 2000. University of Illinois, Urbana, IL.
44. Mechanisms and significance of acid tolerance in *E. coli* O157:H7. 2000. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
45. Hidden hazards affecting food safety and consumers. 2000. Livestock marketing seminar. Arlington Public Events Center, Arlington, WI.
46. Waterborne dissemination of *Escherichia coli* O157:H7. 2000. FDA/FSI Extramural Research Annual Review. College Park, MD.
47. Influence of antibiotic (sulfamethazine) administration on the number and duration of *Escherichia coli* O157:H7 shedding in cattle. 2000. Wisconsin Beef Council, Madison, WI.
48. Waterborne transmission of *E. coli* O157:H7 — contribution to herd prevalence and possible control point. 2001. National Cattlemen's Beef Association annual meeting, Dairy Producer Communications Forum. San Antonio, TX.
49. Control of *E. coli* O157:H7 — research update. 2001. National Cattlemen's Beef Association annual meeting, Beef Safety Committee. San Antonio, TX.
50. Global regulators in *E. coli* O157:H7 — targets for control. 2001. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
51. *E. coli* O157:H7 update. 2001. Wisconsin Beef Council, Madison, WI.
52. *E. coli* O157:H7 update: Progress and pitfalls. 2001. Joint conference of WAMFS, WEHA, and WADPFR, Wisconsin Dells, WI.

53. Influence of dietary molasses and cottonseed on *Escherichia coli* O157:H7 shedding in cattle. 2002. Wisconsin Beef Council, Madison, WI.
54. *E. coli* O157:H7 — a prototype of future pathogens. 2002. UW-CALS Board of Visitors. The Pyle Center, Madison, WI.
55. *Escherichia coli* O157:H7 clonal turnover and ecological fitness. 2003. Annual Meeting of the Food Research Institute. The Pyle Center, Madison, WI.
56. Linking *Escherichia coli* O157:H7 clonal turnover with possible control strategies. 2003. The Second Governor's Conference on Ensuring Meat Safety: *E. coli* O157:H7 Progress and Challenges. Embassy Suites Hotel, Lincoln, Nebraska.
57. Prevalence and antibiotic resistance of *E. coli* O157:H7 in downer dairy cattle from the Upper Midwest. 2003. ARS-NAFS Mini-Symposium. New Orleans, Louisiana.
58. *E. coli* O157:H7 control strategies. 2003. Dow Agro-Sciences. Madison, WI.
59. Acidophilic prokaryotes — from manure to mines. 2004. University of Nebraska seminar series. Omaha, NE.
60. *E. coli* O157:H7 clonal turnover and competitive fitness. 2004. University of Illinois, Urbana, IL.
61. Antimicrobial properties of a heat- and phosphate-generated glucose byproduct and other new antimicrobials. 2005. Annual Meeting of the Food Research Institute: "Development and Application of Food Antimicrobials, Cleaning and Sanitation." The Pyle Center, Madison, WI.
62. Enterohemorrhagic *E. coli* in acidic foods. 2006. National meeting of the American Society for Microbiology, Orlando, FL.
63. *E. coli* O157:H7 ecology and dissemination. 2007. Department of Dairy Science, UW-Madison.
64. How did that spoil? A brief review of microbial diversity and ecology. 2007. FRI symposium on "Microbial Food Spoilage- losses and control strategies". The Pyle Center, Madison, WI.
65. The use of egg yolk anti-O157:H7 immunoglobulin to clear *E. coli* O157:H7 from the intestinal tract of cattle. 2007. American Meat Institute scientific advisory committee meeting. UW-Microbial Sciences Building, Madison, WI.
66. How safe is our food? 2007. UW-Microbial Sciences Building dedication symposium, Madison, WI.
67. Effects of sodium vs other salts on microbial ecology/safety. 2008. FRI symposium on "Sodium Reduction and its Effects on Food Safety, Food Quality, and Human Health". The Pyle Center, Madison, WI.
68. Genomics meets physiology: What have genomics taught us about the effects of growth phase and stress exposure on bacterial physiology? 2008. ILSI symposium on "Bacterial Physiology- A Forgotten Theme that is Critical for the Food Microbiologist". Meeting of the International Association of Food Protection, Columbus, OH.
69. Microbial acidophiles- from manure to mines. 2008. METC seminar series. UW-Madison.

70. Today's microbial challenges- a case study. 2009. The 7th Annual Symposium Sponsored by Covance Laboratories and the UW Food Research Institute. Covance Laboratories, Madison, WI
71. The long and short of microbial stress responses. 2010. Graduate Student Organization, Iowa State University, Ames, IA
72. Current issues in food safety. 2010. Undergraduate Bacteriology Club, UW-Madison.
73. Non-O157 STEC survival in pepperoni. 2010. Food Research Institute seminar series. UW-Madison.
74. Non-O157 STEC: current knowledge on virulence, transmission and stability in foods. 2010. FRI Annual Meeting, Microbial Sciences Building, UW-Madison
75. Significance and detection of non-O157 STEC. 2010. Wisconsin Lab Association Educational Conference. Wisconsin Dells, WI
76. Desiccation tolerance in *Salmonella* serovars. 2011. Food Research Institute Spring Meeting, Pyle Center, Madison, WI.
77. The Long and Short of *Salmonella*. 2011. North Central Association of Food and Drug Officials. Sioux Falls, SD.
78. Pathogenic *Escherichia coli*. 2011. Eastern Illinois University. Charleston, IL.
79. Research on Pathogenic *Escherichia coli*. 2011. UW-Platteville Food Science majors. Madison, WI.
80. Kaspar, C.W. 2012. STEC virulence and prevalence. FRI Annual Meeting, Madison, WI.
81. Kaspar, C. W. 2012. Challenges with Shiga toxin-producing *Escherichia coli* (STEC). Covance and Food Research Institute joint meeting on Relevant Regulatory and Analytical Solutions for Food and Dietary Supplements, Madison, WI.
82. Kaspar, C. W. 2012. Challenges and control of *Escherichia coli* O157:H7. Johnsonville Science Summit, Animal Sciences Department, Madison, WI.
83. Kaspar, C.W. 2013. Tracking STEC evolution. FRI Annual Meeting. Madison, WI.
84. Kaspar, C.W. 2013. STEC. UW-Madison FRI summer research program. Madison, WI.
85. Kaspar, C. W. 2014. Subtyping methods for foodborne pathogens. FRI Annual Meeting. Madison, WI.
86. Kaspar, C.W. 2014. Gram-negative foodborne pathogens. UW-Madison FRI summer research program. Madison, WI.
87. Kaspar, C. W. 2014. Pre-harvest food safety and implications for control of foodborne pathogens. USDA, Wisconsin Food Safety Summit. Madison, WI.
88. Kaspar, C.W. 2015. Gram-negative foodborne pathogens. UW-Madison FRI summer research program. Madison, WI.

89. Kaspar, C.W. 2016. Evolution of foodborne pathogens. FRI Annual Meeting. Madison, WI.
90. Kaspar, C.W. 2016. The long and short of *Salmonella*. UW-Madison FRI summer research program. Madison, WI.
91. Kaspar, C.W. 2017. Desiccation tolerance in *Salmonella enterica*. FRI Annual Meeting. Madison, WI.
92. Kaspar, C.W. 2017. Population heterogeneity in clonal populations of *Salmonella enterica*. ASM North Central Branch Meeting, DePere, WI.

Research support

Current funding

Characterization of a switch for population heterogeneity in *Salmonella enterica*. Food Research Institute, \$100,000, 2012-2016. C. W. Kaspar, principal investigator.

Regulating stx prophage to manage transmission and virulence of Shiga-toxin producing *E. coli*. USDA, HATCH, \$105,000, 2015-2018. C. W. Kaspar, principal investigator.

Colonization of legume sprouts by *Salmonella enterica*. USDA, HATCH, \$100,000, 2014-2017. J.-M. Ane and C.W. Kaspar, principal investigators

Previous grants

1. Stress-protection systems in Gram-negative foodborne pathogens. University of Wisconsin, Food Research Institute, \$120,834, July 1992 to June 1994. C. W. Kaspar, principal investigator.
2. Impact of sublethal stress on the detection and survival of *Campylobacter jejuni*. HATCH, University of Wisconsin Agriculture Experiment Station, \$82,000, July 1993 to September 1997. C. W. Kaspar, principal investigator.
3. Performance characteristics of direct-plate counts for *Clostridium perfringens*, *Escherichia coli*, and enterococci in shellfish. National Oceanic and Atmospheric Administration, National Indicator Study, LUMCON, \$50,299, August 1993 to July 1995. C. W. Kaspar, principal investigator.
4. Determination of the viable form of *Vibrio vulnificus* in cold water environments. National Oceanic and Atmospheric Administration, National Marine Fisheries, \$20,160, September 1993 to April 1994. M. L. Tamplin, University of Florida and C. W. Kaspar, principal investigators.
5. Environmentally-induced responses and their role in the survival and resistance properties of nonsporeforming bacteria. S. C. Johnson Wax Inc., \$66,000, March 1994 to June 1997. C. W. Kaspar, principal investigator.
6. Sources and fate of *Escherichia coli* O157:H7 in cheese. Center for Dairy Research, University of Wisconsin–Madison, \$27,000, July 1994 to June 1995. C. W. Kaspar, principal investigator.
7. Significance of stress-protection systems in the survival of *Escherichia coli* O157:H7. University of Wisconsin, Food Research Institute, \$76,182, July 1994 to June 1995. C. W. Kaspar, principal investigator.

8. Survival of *Mycobacterium paratuberculosis* in cheese. Wisconsin Milk Marketing Board, \$70,942, August 1994 to July 1997. M. T. Collins, C. W. Kaspar, and M. E. Johnson, principal investigators.
9. Pre-harvest surveillance of *Escherichia coli* O157:H7. National Live Stock and Meat Board, \$47,500, September 1994 to August 1995. C. W. Kaspar and J. B. Luchansky, principal investigators.
10. *Escherichia coli* O157:H7 acid tolerance and its impact on survival and animal passage. USDA, National Research Initiative Competitive Grants Program, \$140,000, September 1994 to August 1996. C. W. Kaspar, principal investigator.
11. Food safety in relation to animal husbandry practices. McDonald's Corporation, \$35,000, October 1994 to September 1995. C. W. Kaspar and J. B. Luchansky, principal investigators.
12. Use of pulsed-field genomic typing to establish the origin, succession, and dissemination of strains of *Escherichia coli* O157:H7. USDA, Animal, Plant, Health Inspection Service, \$15,000, October 1994 to September 1995. J. A. Shere, C. W. Kaspar, and J. B. Luchansky, principal investigators.
13. Fate and control of *Escherichia coli* O157:H7 in fermented meats. Doscocil Companies Inc., \$15,500, January 1995 to June 1995. C. W. Kaspar and J. B. Luchansky, principal investigators.
14. Process validation of dry, fermented sausages for control of *Escherichia coli* O157:H7. National Live Stock and Meat Board, \$63,765, January 1995 to June 1996. J. B. Luchansky, Eric A. Johnson, and C. W. Kaspar, principal investigators.
15. Behavior of *E. coli* O157:H7 in fermented meats. Patrick Cudahy Inc., \$32,500, July 1995 to December 1995. C. W. Kaspar and J. B. Luchansky, principal investigators.
16. Ecology and dissemination of *Escherichia coli* O157:H7 on dairy farms. University of Wisconsin, Food Research Institute, \$50,000, July 1995 to June 1996. C. W. Kaspar, principal investigator.
17. Origin and dissemination of *Escherichia coli* O157:H7 on Wisconsin dairy farms. USDA, Animal, Plant, Health Inspection Service, \$80,000, July 1995 to December 1996. J. A. Shere and C. W. Kaspar, principal investigators.
18. Dissemination of *Escherichia coli* O157:H7 among dairy cattle—sources and control. Wisconsin Beef Council, \$20,000, January 1996 to December 1998. C. W. Kaspar, principal investigator.
19. Control of *Escherichia coli* O157:H7. University of Wisconsin, Food Research Institute, \$70,000, July 1996 to June 1997. C. W. Kaspar, principal investigator.
20. Fate of *Listeria monocytogenes* and *Escherichia coli* O157:H7 in processed cheese. Borden Inc., \$8,008, August 1996 to December 1996. J. B. Luchansky, A. C. L. Wong, and C. W. Kaspar, principal investigators.
21. Identification and regulation of key *rpoS*-regulated proteins in *E. coli* O157:H7. USDA, National Research Initiative Competitive Grants Program, \$115,000, October 1996 to September 1998. C. W. Kaspar, principal investigator.

22. Process validation of dry, fermented sausages for control of *Escherichia coli* O157:H7 National Cattlemen's Association, \$28,500, January 1997 to June 1997. J. B. Luchansky and C. W. Kaspar, principal investigators.
23. The role of Dps in *Escherichia coli* O157:H7 acid tolerance. Edward J. and Katherine L. Schantz Fellowship, \$18,000, July 1997 to June 1998. Awarded to David Baumler; major professor C. W. Kaspar.
24. Enhancement of acid tolerance in *Zymomonas mobilis*. Department of Energy, National Renewable Energy Laboratory, \$120,000, July 1997 to August 1999. C. W. Kaspar, principal investigator.
25. Interaction of cAMP- and *rpoS*-regulons in *Escherichia coli* O157:H7 during substrate accelerated death. USDA, NRICGP, sabbatical award, \$50,635, September 1997 to August 1998. J. Byrd principal investigator. C. W. Kaspar, collaborator.
26. Testing the efficacy of bladerunner on cleaning meat slicers. \$7,200, June 1998 to August 1998. C. W. Kaspar and A. C. Wong, principal investigators.
27. Waterborne transmission and shedding of *E. coli* O157:H7 in dairy cattle. University of Wisconsin, Food Research Institute, \$150,000, July 1998 to June 2000. C. W. Kaspar, principal investigator.
28. Role of contaminated water in *Escherichia coli* O157:H7 shedding in cattle. Wisconsin Beef Council, \$9,600, September 1998 to August 1999. C. W. Kaspar, principal investigator.
29. Waterborne dissemination of *Escherichia coli* O157:H7. Food and Drug Administration, Center for Veterinary Medicine, \$207,454, October 1998 to September 2000. C. W. Kaspar, principal investigator.
30. DNA-binding proteins CspE and Dps protect DNA at low pH in *E. coli* O157:H7. USDA, National Research Initiative Competitive Grants Program, \$115,016, October 1998 to September 2000. C. W. Kaspar and C.-M. Chang, principal investigators.
31. Enrichment of *Salmonella* spp., *Listeria monocytogenes*, and *Escherichia coli* O157:H7 from raw meats and detection by copolis light scattering latex agglutination. American Standard Companies, \$72,180, April 1999 to March 2000. C. W. Kaspar and J. B. Luchansky, principal investigators.
32. Influence of antibiotic (sulfamethazine) administration on the number and duration of *Escherichia coli* O157:H7 shedding in cattle. Wisconsin Beef Council, \$6,000. September 1999 to August 2000. C. W. Kaspar, principal investigator.
33. Life in acid. National Science Foundation, \$560,422, September 1999 to September 2003. J. F. Banfield, B. G. Fox, and C. W. Kaspar, principal investigators.
34. Global regulation of stress tolerance in *E. coli* O157:H7. University of Wisconsin, Food Research Institute, \$150,000, July 2000 to June 2003. C. W. Kaspar, principal investigator.
35. Influence of feeding whole cottonseed and molasses on the numbers and duration of *E. coli* O157:H7 shedding in cattle. Wisconsin Beef Council, \$19,000, October 2000 to September 2002. C. W. Kaspar, principal investigator.

36. Prevalence and antibiotic resistance of *Escherichia coli* O157:H7 in downer dairy cattle from the upper midwest. NAFS/ARS, \$93,000, November 2000 to October 2002. C. W. Kaspar, D. Buege, and A. Benson, principal investigators.
37. Regulation of *dps* — a key acid tolerance protein in *Escherichia coli* O157:H7. HATCH, \$82,000, September 2001 to August 2005. C. W. Kaspar, principal investigator.
38. The use of egg yolk anti-O157:H7 immunoglobulin to clear *E. coli* O157:H7 from the intestinal tract of cattle. American Meat Institute Foundation, \$151,982, April 2002 to March 2004. C. W. Kaspar, principal investigator.
39. Prevalence and growth of *E. coli* O157:H7 in the bovine gall bladder. NCBA, \$10,000, 2005. C. W. Kaspar, principal investigator.
40. Antimicrobial activity of plum extracts against foodborne pathogens. Phenolics, \$4,566, 2005. C. W. Kaspar, principal investigator.
41. Human illness caused by *E. coli* O157:H7 from food and non-food sources. AMI, \$12,550, January 2006 to May 2006. C. W. Kaspar, principal investigator.
42. Optimizing treatment for TTP and platelet refractoriness. NIH, \$1,544,599, September 2002 to August 2007. J. G. McFarland, R. Woodson, et al., principal investigators.
43. Construction and characterization of reporter strains for the identification of physiochemical parameters influencing growth, stress tolerance, and virulence of *Escherichia coli* O157:H7. USDA, ARS, \$81,000, October 2005 to September 2007. C. W. Kaspar, principal investigator.
44. Human illness caused by *Salmonella* from food and non-food sources. AMI, \$15,000, May 2008 to December 2008. C. W. Kaspar, principal investigator.
45. Human illness caused by non-O157:H7 *E. coli* from food and non-food sources. AMI, \$10,000, January 2009 to December 2009. C. W. Kaspar, principal investigator.
46. Validation of pepperoni process for control of Shiga-toxin producing *E. coli* (O26, O45, O111, O121, O145, and O157). Grocers Manufacturing Association, \$35,000, June 1, 2009 to December 31, 2009. Glass, Czuprynski, and Kaspar, principal investigators
47. Formation, survival and virulence of stress-induced filamentous *Listeria monocytogenes*. AMI Foundation. \$56,440, 2010-2011. Wong, Czuprynski, Kaspar, principal investigators
48. Plant responses to the colonization by *Escherichia coli* O157:H7 and *Salmonella*. JIFSAN, ~\$100,000, 2008-2011. Ane, Brown, Kaspar, principal investigators
49. Contamination of fruits, nuts, and vegetables by filamentous *Salmonella*; persistence and virulence. USDA, \$394,841, January 1, 2010 to June 2013. Kaspar, Wong, and Czuprynski, principal investigators
50. Transmissibility of infections caused by intermittently shed pathogens capable of environmental persistence. NSF, \$1,047,678, September, 2009 to June, 2013. Ivanek, Dopfer, and Kaspar, principal investigators.

51. Filament formation and the pathogenesis of Salmonellosis. HATCH. ~\$75,000, 2010-2013. Wong, Kaspar, Czuprynski, principal investigators
52. Sources and persistence of non-O157 Shiga-like toxin producing *Escherichia coli* in beef slaughter and thermal processing operations and validation of intervention treatments for small and large plants. USDA, \$600,000, September, 2009 to August, 2014. Ingham, Kaspar, and Dopfer, principal investigators

Teaching

Classroom

My primary teaching responsibility since 2013 is Microbiology 325 (Food Microbiology), which has an enrollment of 110+ students. I taught this course from 1998-2009 but switched to Microbiology 303 (2008-2012), a large introductory microbiology class with 200-300 students after joining the Department of Bacteriology. I taught Microbiology 303 with Professors Downs and Escalante every semester for 5 years (2008-2012). Prior to 1998, I was the coordinator or co-coordinator for Bact/FS 350 (1993 and 1994), Bact/FS 702 (1993), Bact/FS 670 (1995), and Bact/FS 650 (1995–2000). In addition, I am or have been involved in short courses and workshops taught on and off campus.

Bacteriology 325 (Food Microbiology) is a 3-credit course offered every fall and typically has an enrollment of 120+ students. My overall average score from student evaluations from 13+ years is 4.2 (range 3.7-4.4) on a 5-point scale ranging from 5 (excellent) to 1 (poor).

Other courses in which I participate(d):

Animal Science 101 (Livestock Production) — lecture on the epidemiology of foodborne illness.

Animal Science 431 (Beef Cattle Production) — lecture on the impact of foodborne illness, specifically *E. coli* O157:H7

Animal Science 505 (Rumen Microbiology) — lecture on growth and persistence of *E. coli* O157:H7 in ruminants

Bacteriology 303 (Prokaryotic Microbiology) is a large introductory course in microbiology with a typical enrollment between 275-340 students. I taught Microbiology 303 in the fall and spring semesters with Professors Escalante and Downs (2008-2012).

Bacteriology 305 (Prokaryotic Microbiology) is a required, one-credit microbiology problem-solving course in microbiology. I led one of these sections in Spring 2008.

Bact/FS 350 (Foodborne Disease Hazards) was a 3-credit course for undergraduate/graduate students that was offered every spring.

Bact/FS 650 (Advanced Microbiology of Foodborne Pathogens) is a 3-credit course for undergraduate/graduate students that is offered every spring and typically has an enrollment of 15-20 students. Coordinator or co-coordinator 1995–2001. Scores from student evaluations were based on a 3-point scale in 1995, a 4-point scale 1996–1999, and a 5-point scale in 2000. All values reported are normalized to a 5-point scale. Overall average score was 4.43 (range 3.75-4.64).

Bact/FS 670 (Trends in Food Safety: Epidemiology, Physiology, and Control) is a 2-credit course for graduate students that is offered every two years. Co-coordinator for course in 1995. Student evaluations were based upon a 4-point scale as follows: 1 (poor), 2 (fair), 3 (good), or 4 (excellent). Overall average score was 3.48.

Bact/FS 702 (Advanced Microbiology of Foodborne Pathogens) was a 2-credit course that was offered every two years. Scores from student's evaluations were based upon a 4-point scale as follows: 1 (poor), 2 (fair), 3 (good), or 4 (excellent). Overall average score of items evaluated was 3.26.

Pathobiological Sciences 511 (Veterinary Bacteriology) — lectures on *Campylobacter jejuni* and *E. coli* O157:H7

Environmental Toxicology 800 (seminar): Co-coordinator 2002–2003.

Environmental Toxicology 606— lectures on the ecology and dissemination of *E. coli* O157:H7

MDTP core course: lecture and discussion fall 2009.

PHS/Env. Sci. 471 (Introduction to Environmental Health) – lectures on the epidemiology of foodborne illness, 2012-present

Short courses and workshops

Advanced Food Safety for Industrial Microbiologists, short course 1992; short course 1994. Lectures on the ecology of bacterial pathogens, *Campylobacter jejuni*, pathogenic *Escherichia coli*, *Salmonella*, *Shigella*, *Vibrio*, and *Yersinia enterocolitica*. Food Research Institute, Madison, WI.

Cheese Research and Technology Conference. Presentation to the Dairy Industry on setting-up sampling programs to monitor food-processing environments. 1993. Cheese Research and Technology Conference. Holiday Inn–West Towne, Madison, WI.

FDA, *Vibrio vulnificus* workshop. 1994. Session moderator for Ecological and Environmental Influences. Washington, D.C.

Producing Safe Dairy Foods Workshop. 1994. Lectures on *Campylobacter jejuni*, pathogenic *Escherichia coli*, and *Yersinia enterocolitica*. Wisconsin Center for Dairy Research, Madison, WI.

Emerging Foodborne Pathogens and Modeling/tracking Techniques. 1995. Coordinator. American Society for Microbiology general meeting, May 21, Washington D.C.

Salami Validation Study Meeting. 1995. National Life Stock and Meat Board, Chicago, IL.

New Methods for Old Pathogens. 1996. Coordinator. Annual Meeting of the International Association of Milk, Food, and Environmental Sanitarians (IAMFES), June 29, Seattle, WA.

Detection and Typing of Food-borne Microorganisms and their Toxins. 1997. Coordinator. American Society for Microbiology general meeting, May 3, Miami, FL

Detection, Characterization, and Subtyping of Foodborne Pathogens and their Toxins. 1998. Coordinator. American Society of Microbiology general meeting, May 16, Atlanta, GA.

Detection, Characterization, and Subtyping of Foodborne Pathogens and their Toxins. 1999. Coordinator. American Society of Microbiology general meeting, May 30, Chicago, IL.

Food Research Institute/UW Extension: Safety Validation of Heating/Cooling Processes for Meat and Poultry Products. 1999. Lecture on Validation Studies, November 16, University of Wisconsin, Madison, WI.

Food Research Institute/UW Extension: Safety Validation of Heating/Cooling Processes for Meat and Poultry Products. 2000. Lecture on Validation Studies, March 15, University of Wisconsin, Madison, WI.

Escherichia coli O157:H7 in Meats. 2000. Wisconsin Association of Meat Processors, October 4, University of Wisconsin, Madison, WI.

Food Safety and Meat Microbiology School. 2010. Lecture on pathogenic *Escherichia coli* and *Salmonella* in meat and meat products, August 25-27. UW-Extension, FRI, Wisconsin Department of Agriculture, Trade and Consumer Protection. University of Wisconsin, Madison

Food Safety and Meat Microbiology School. 2014. Lecture on Gram-negative foodborne pathogens, July 22-24. UW-Extension, FRI, Wisconsin Department of Agriculture, Trade and Consumer Protection. University of Wisconsin, Madison

Food Safety and Meat Microbiology School. 2016. Lecture on Gram-negative foodborne pathogens, July 23-25. UW-Extension, FRI, Wisconsin Department of Agriculture, Trade and Consumer Protection. University of Wisconsin, Madison

Mentor teaching

Undergraduate students

Current

Jarret Godfrey⁶, Abby Zittel, David Richards

Past

Niki Allaback, Brent Balog, Emily Barker⁵, David Baumler, Mathew Bozille, Justin Betzelberger, Jeffrey Bose¹, Lindsey Buswell, Cara Chermak, Kelly Collins, Rochelle Conway, Rebecca Danhoff², Kim Darling, Lekeah Durden⁴, Devin Dutilly, Drew Docter, Amy Elsmann-Winkler, Rachel Foreman, Sean Francey, Neil Gandhi, Brad Gietman^{1,6}, Aaron Gnas², Tricia Griffiths, Clayton Heimke, Osamu Hiki, Nathan Johnson, Jihun Kang, Marion Kawani³, Jun Ho Kim, Ching Lee, Josh Lensmire⁶, Heather Malecki, Gerald Martell⁶, Kayla Martens, J. T. McCrone, Sarah Meyer, Madeline Lopez Munoz⁴, Brett Norell, Sei Hyeon (Rachel) Park, Daniel Parrell, Joe Pendleton⁶, Dan Pike, Ian Rasch⁶, Merike Seaman, Tim Seyidov, Megan Shiroda, Prin Soni, Bob Stackhouse, Eliot Stanton, Kevin Szeto, Tricia Traci, Boris Vykhodets, Regina Whitmarsh⁵, Mike Wittkowske, Karynne Woodward, Austin Yahr⁶, Amanda Yang, Elizabeth Zender

¹Winner of the John H. Nelson Undergraduate research award

²Undergraduate research scholar

³Howard Hughes Medical Institute, Undergraduate Research, Summer Symbiosis Program

⁴NSF, REU, student

⁵Recipient of the Schantz fellowship for undergraduate research

⁶FRI, Summer Undergraduate Research Program in Food Safety

Graduate students*Current*

†Eliot Stanton, MDTP, Eliot is studying genome alterations in *E. coli* O157:H7.

Taylor Wahlig, MDTP, Taylor is studying population heterogeneity in *Salmonella enterica*.

Past

1. Judy Hudock, M.S. 1995. Ms. Hudock's thesis was entitled "Formation and Characterization of the Coccoid Form of *Campylobacter jejuni*." Ms. Hudock is currently employed as a microbiologist.
2. Anne Cheville, M.S. 1996. Ms. Cheville's thesis was entitled "Characterization of s38-Controlled Resistance Properties in *Escherichia coli* O157:H7." She is the recipient of a S.C. Johnson Wax fellowship. Ms. Cheville is currently employed as a research scientist recruiter.
3. Adam Borger, M.S. 1998. Mr. Borger's thesis was entitled "Role of stress-protection systems and extrinsic factors in the survival of *Campylobacter jejuni*." Adam has worked at Kraft, Oscar Meyer, Rich Foods, and is currently Outreach Program Manager at the FRI, UW-Madison.
4. David Baumler, M.S. 2000. Mr. Baumler's thesis was entitled "Characterization of growth and survival of *Escherichia coli* and *Zymomonas mobilis* in acid." David continued Graduate School and obtained his Ph.D. (see below). He is currently an Assistant Professor, Department of Food Science, University of Minnesota.
5. Jack Shere, D.V.M., Ph.D. 2001. Dr. Shere's thesis was entitled "The epidemiology of *Escherichia coli* O157:H7 in dairy cattle." Dr. Shere is currently the area Director for USDA, APHIS, VS.
5. *Jeffrey Bose, M.S. student in Food Science, 1999–2002. Jeff's thesis was entitled "Acid sensitivity caused by tetracycline in resistant strains of *Escherichia coli*." Jeff completed his Ph.D. at the University of Georgia in 2007 and is currently an Assistant Professor, Department of Microbiology, at the University of Kansas Medical Center.
6. Osamu Hiki, M.S. 2003. Mr. Hiki's thesis was entitled "Phenotypic and Genotypic Characterization of Dominant and Variant *E. coli* O157:H7 Strains." He is currently working on a Pharmacy degree.
7. Kwang-Cheol Jeong, Ph.D. 2004. Dr. Jeong's thesis was entitled "An examination of *dps*-mediated acid tolerance in *Escherichia coli* O157:H7. Kwang-Cheol is currently an Assistant Professor at the University of Florida.
9. *†David Baumler, M.S., Ph.D. 2006. Dr. Baumler's thesis was entitled "The sulfur cycle and the absolute requirement for sulfate in the acidophilic archaeon *Ferroplasma acidarmanus*". He is currently an Assistant professor, Department of Food Science, at the University of Minnesota.

10. Thomas Mand, M.S. Bacteriology 2011. Mr. Mand's thesis title was "Growth and survival parameter estimates and relation to RpoS level in O157:H7 and non-O157:H7 Shiga toxin-producing *Escherichia coli*". He is now pursuing a Ph.D. at the University of Illinois.
11. A.J. Stasic, M.S. Bacteriology 2013. A.J.'s thesis title was "Stress Tolerance of *Escherichia coli* O157:H7 and *Salmonella*". He is pursuing a Ph.D. at the University of Georgia.
12. Megan Shiroda, M.S. Bacteriology 2013. Megan's thesis title was "RpoS contributes to both growth and survival of *Salmonella* spp. during osmotic stress". She is pursuing a Ph.D. at Michigan State University.
13. Eliot Stanton, M.S. Bacteriology 2014. Eliot's thesis title was "IS-mediated inactivation of *stx* in *E. coli* O157:H7".
14. Torin Evans, M.S. Bacteriology 2014. Torin's thesis title was "Stability of IS₆₂₉ and *stx* prophage in *Escherichia coli* O157:H7 during passage in a simulated transmission cycle". Torin is currently employed as a research technician.
15. Josh Lensmire, M.S. Bacteriology 2016. Josh's thesis title was "Formation of filamentous *Salmonella enterica* during osmotic stress requires phosphate and carbohydrate". Josh is currently a Ph.D. student at Michigan State University.
16. Erin Baldwin, M.S. Bacteriology 2017.

*Recipient of an Edward J. and Katherine L. Schantz fellowship.

†Recipient of the Michael and Winona Foster Distinguished Graduate Fellowship in Food Microbiology

Service on student committees:

Current

1. Travis DeWolfe, Comparative Biomedical Sciences Ph.D. student, Major Professor Jim Steele
2. India Monsour, Soil Sciences M.S. student, Major Professor Sharon Long
3. Laura Burr, Food Science M.S. student, Major Professor J. P. van Pijkeren
4. Russ McMinn, Animal Science Ph.D. student, Major Professor Jeff Sindelar
5. Ming Young Lee, Bacteriology M.S. student, Major Professor Jaehyuk Yu
6. Mark Devries, Bacteriology M.S. student, Major Professor Dan Jackson
7. Youngsang Yu, Biological Systems Engineering Ph.D. student, Major Professor Gunarsekaran
8. Ahmad Alshannay, Food Science Ph.D. student, Major Professor Jaehyuk Yu
9. Alicia Truchon, Bacteriology MDTP student, Major professor Caitlin Allen
10. Sarah Engstrom, Food Science Ph.D., Major professor James Steel and Kathleen Glass
11. Andrew Steinberger, MDTP Ph.D. student, Major Professor Garret Suen

Past

1. Kartika D. Harsono, Food Science, M.S. 1993. Major professor J. B. Luchansky.
2. Chong-Ming Cheng, Food Science, Ph.D. 1994. Major professor J. B. Luchansky.
3. Ratih Dewanti, Food Science, Ph.D. 1994. Major professor A. C. L. Wong.
4. Nackmoon Sung, Bacteriology, M.S. 1996. Major professor M. T. Collins.
5. Wen He, Food Science, Ph.D. 1996. Major professor J. B. Luchansky.
6. Kurt Fenster, Food Science, M.S. 1996. Major professor J. A. Steele.
7. Nicolle Williams, Food Science, M.S. 1997. Major professor S. I. Ingham.
8. Paul Park, Food Science, Ph.D. 1997. Major professor D. O. Cliver.
9. Shu-Jean Tsai, Food Science, Ph.D. 1998. Major professor J. B. Luchansky.
10. Jay Sage, Food Science, M.S. 1999. Major professor S. I. Ingham.
11. Peter Rose, Environmental Toxicology, Ph.D. 2000. Major professor J. Harkin.
12. Mehmet Calicioglu, Animal Science, Ph.D. 2001. Major professor D. Buege.
13. Heidi E. Uljas, Food Science, Ph.D. 2001. Major professor S. I. Ingham.
14. Joe Besetti, Molecular & Environmental Toxicology, M.S. 2001. Major professor L. Allen-Hoffmann.

15. Kaaru Murayuma, Molecular & Environmental Toxicology, M.S. 2001. Major professor L. Allen-Hoffmann.
16. Jean Schoeni, Food Science/Bacteriology, Ph.D. 2002. Major professor A. C. L. Wong.
17. Amanda Schnapp, Bacteriology, M.S. 2002. Major professor Brian Fox.
18. Kurt Fenster, Food Science, Ph.D. 2002. Major professor J. A. Steele.
19. Emily Burton, Molecular & Environmental Toxicology, M.S. 2004. Major professor Bill Hickey.
20. Carlos Echavarri, Food Science, Ph.D. 2005. Major professor Eric Johnson.
21. Thomas Malone, Molecular & Environmental Toxicology, Ph.D. 2006. Major professor Brian Fox.
22. Tzu-Pi Huang, Food Science, Ph.D. 2006. Major professor Amy C. Lee Wong.
23. Bahlil Dosti, Food Science, Ph.D. 2006. Major professor J. A. Steele.
24. Greg Burnham, Food Science, M.S. 2007. Major professor Steve Ingham.
25. Yi-huang Hsueh, Food Science, Ph.D. 2007. Major professor Amy C. Lee Wong.
26. Sherly Bellevue, Molecular & Environmental Toxicology, M.S. 2007. Major professor E. A. Johnson.
27. Nadira Abu, Molecular & Environmental Toxicology, Ph.D. 2007. Major professor L. Allen-Hoffmann.
28. Jiangchao Zhao, Molecular & Environmental Toxicology, Ph.D. 2008. Major professor W. J. Hickey
29. Ju-Yun Bae, Molecular & Environmental Toxicology, Ph.D. 2009. Major professor T. W. Jeffries
30. Bahauddeen Alrfaei, Bacteriology, M.S. 2009. Major Professor J. Escalante
31. Hui Cai, Food Science, Ph.D. 2009. Major professor J. A. Steele.
32. JoAnna Bultman, Molecular & Environmental Toxicology, Ph.D. 2009. Major professor E. A. Johnson
33. Jake Sherf, Bacteriology, M.S. 2010. Major Professor C. Allen
34. Amesha Shetty. Molecular and Environmental Toxicology, Ph.D. 2011. Major Professor W. Hickey
35. Michael Smanski, Bacteriology, Ph.D. 2011. Major Professor B. Shen
36. Laura Schwab, Bacteriology, M.S. 2011. Major Professor Cameron Currie
37. Neil Ghandi, Food Science, M.S. 2012. Major professor Jim Steele
38. Chi Ho Chan, Bacteriology, Ph.D. 2012. Major Professor J. Escalante
39. Kaushi Kanakenga, Comparative Biomedical Sciences, M.S. 2012. Major Professor Dorte Dopfer
40. Joanne Tsarouha, Bacteriology, M.S. 2013. Major Professor Chuck Czuprynski
41. JeeHwan Oh, Food Science, Ph.D. 2013. Major Professor Jim Steele
42. Hee Soo Park, METC, Ph.D. 2013. Major Professor Jaeyhuk Yu
43. Akhila Vasan, Food Science Ph.D. 2014. Major Professor Barb Ingham
44. Amanda King, Animal Science Ph.D. 2014. Major Professor Jeff Sindelar
45. Kyriaki Chatzikiyriakidou, Food Science Ph.D. 2014. Major Professor Barb Ingham
46. Ming Mu, Bacteriology, M.S. 2015. Major Professor Kathleen Glass and C.W. Kaspar
47. Fahad Alkhayyat, Food Science Ph.D. 2016, Major Professor Jaehyuk Yu
48. Akausha Thukral, Bacteriology M.S. 2017, Major professor Adel Talaat
49. Alicia Truckon, Bacteriology M.S. 2017, Major Professor Caitleen Allen
50. Megan Kudlow, Comparative Biomedical Sciences Ph.D. 2017, Major Professor Dorte Dopfer

Postdoctoral Research Associates

Current

Past

Dr. Carmen Buchrieser, 1992–1994. Dr. Buchrieser conducted research on the molecular characterization of *Yersinia enterocolitica* and *Vibrio vulnificus* in my laboratory. Dr. Buchrieser is currently a Principal Investigator at the Pasteur Institute, France.

- Dr. Chong-Ming Cheng, 1994–1997. Dr. Cheng identified *rpoS*-regulated proteins responsible for acid tolerance in *Escherichia coli* O157:H7. He is currently employed by the U.S. Food and Drug Administration, Los Angeles, CA.
- Dr. Kai F. (Billy) Hung, 2004–2008. Dr. Hung studied acid tolerance in an acidophilic mold and *E. coli*. He is currently an Associate Professor at Eastern Illinois University.
- Dr. Kwang-Cheol Jeong, 2010-2011. Dr. Jeong studied stress tolerance in *E. coli* O157:H7. He is currently an Assistant Professor at University of Florida.
- Dr. Dongjin Park, 2009-2013. Dr. Park studied prophage and IS629 elements as markers of evolution in *E. coli* O157:H7. She is currently an Assistant Professor at Keinyung University, Korea.
- Dr. Zach Pratt, 2010-2013. Dr. Pratt studied the molecular aspects of *Salmonella* filamentation. He is currently an Assistant Professor at Edgewood College

Visiting Scientists

- Dr. Irfan Erol, 2001. Univeristy of Ankara, Ankara, Turkey.
- Dr. Sang-Ho Choi, 1998–2001. Chonnan National University, Kwangju, Korea.
- Dr. Jeffrey Byrd, 1997–1998. St. Mary's College, St. Mary's City, Maryland. Dr. Byrd was the recipient of a USDA, National Research Initiative Competitive Grants Program, sabbatical award.
- Dr. Jeffrey Byrd, 2004–2005. St. Mary's College, St. Mary's City, Maryland.

Service

University

- | | |
|--------------|---|
| 1992–1993 | Faculty senator (alternate) for District 10 |
| 1993 | CALS, Wisconsin Idea Tour, participant |
| 1993–1996 | Department of Food Microbiology and Toxicology, curriculum committee |
| 1993–2004 | Annual meeting program committee of the Food Research Institute |
| 1994–1999 | Faculty senator for District 10 |
| 1994–present | Department of Food Science, graduate admissions and standards committee |
| 1995 | CALS/FRI Conference: Vision for Food Safety. The Wisconsin Center, Madison, WI, participant |
| 1995–present | CALS, reviewer for HATCH and McIntire-Stennis proposals |
| 1998 | Organizing committee for CALS Issue Forum, Industrialization and Globalization |
| 1999–2002 | Molecular and Environmental Toxicology Center, Associate Director |
| 1999–2005 | Molecular and Environmental Toxicology Center, steering committee |
| 1999–2004 | Molecular and Environmental Toxicology Center, graduate achievement and curriculum (chair) |
| 1999–2006 | Molecular and Environmental Toxicology Center, preliminary examination committee |
| 2000–2005 | Molecular and Environmental Toxicology Center, admissions committee (chair) |
| 2005-2007 | Molecular and Environmental Toxicology Center, admissions committee |
| 2000–2006 | Department of Food Microbiology and Toxicology, mentor committee for Dr. Jaeyhuk Yu |
| 2001 | Department of Soil Science, search and screen committee |
| 2001–2006 | Department of Soil Science, mentor committee for Dr. Joel Pederson |
| 2003–2004 | Molecular and Environmental Toxicology Center, Director |
| 2004–2006 | Pound Research Award Committee |
| 2004–2010 | UW Biological Safety Committee |
| 2005 | Department of Animal Sciences, search and screen committee |
| 2006-2007 | Food Research Institute bylaws subcommittee |
| 2007-2009 | CALS, Pound Research Award Committee |
| 2007 | Department of Bacteriology, admissions committee |
| 2007 | CALS, evaluation of foodservice events in the Stock Pavilion |
| 2007-2010 | CALS, Facilities and planning committee |

2007-2010	Department of Bacteriology, Leadership team, Outreach team leader
2008-2010	Department of Bacteriology, Building and space committee
2008	University Biological Safety Officer, search and screen committee
2008	Mentor for NSF, REU summer student Madeline Lopez Munoz
2009-2010	CALS, Honorary Recognition Committee
2009-2010	Mentor for Undergraduate Research Scholars Program, Aaron Gnas
2010	Department of Bacteriology, Raper Symposium judge for poster competition.
2010	Mentor for NSF, REU summer student Lekeah Durden
2011	Promotion committee chair for Dr. Jae-Hyuk Yu
2011-2015	Department of Bacteriology, Curriculum Committee
2011-2014	CALS, Scholastic Policies and Actions Committee
2012	Department of Bacteriology, Student awards committee
2012-2013	Department of Bacteriology, Raper Symposium judge for poster competition
2012	Department of Bacteriology, Faculty Senator
2012-2015	MDTP Admissions Committee
2013	Promotion committee chair for Dr. Trina McMahon
2013-2015	Biology Major Program Committee
2014	BMPC, subcommittee on defining assessments for program
2015	Department of Bacteriology, Undergraduate Program self assessment committee
2015	Department of Bacteriology, post-tenure review
2015	CALS review team of the Department of Animal Sciences
2015-	Department of Bacteriology, Chair
2016	Raper symposium judge for poster competition
2016	Dr. Garret Suen promotion
2016	Department response to undergraduate program review
2016	CALS, charter group for college reorganization
2016	CALS, chair's retreat coordinator and group leader
2017	CALS, college reorganization retreat
2017	ASM North Central Branch Meeting judge for student poster session
2017-	Department of Bacteriology, Diversity representative
2017	Dr. Kalin Vetsigian promotion

Professional Service

Appointments to editorial boards, scientific committees and review panels

1993–2002	Editorial board of the <i>Journal of Food Protection</i>
1993	Project review for Gerber
1996	Institute of Food Technologists Scientific Status Summary on <i>Escherichia coli</i> O157:H7
1997	Tenure promotion package, Cornell University
1997	President's National Food Safety Initiative, Washington, D.C. March 31–April 2, 1997
1998	USDA panel, National Research Initiative Competitive Grants Program, Ensuring Food Safety
2001	Institute of Food Technologists, Microbiological Food Safety – emerging pathogens
2001–2011	Editorial board of Applied and Environmental Microbiology
2002–2004	American Society for Microbiology division P, chair-elect and chair
2003	NIH panel on Food and Waterborne Diseases Integrated Research Network
2003	American Academy of Microbiology, Preharvest Food Safety and Security, Perth, Scotland
2004	Tenure promotion package, outside reviewer, University of Minnesota
2004	USDA panel, National Research Initiative Competitive Grants Program, Preharvest Food Safety

2005 USDA panel, National Research Competitive Grants Program, Preharvest Food Safety
 2006 USDA panel, National Research Competitive Grants Program, Food Safety
 2006 Tenure promotion package, outside reviewer, Iowa State University
 2006 Promotion package, outside reviewer, University of Idaho
 2007 ASM book review
 2010 Search and Screen Committee, USDA, Dairy Forage Research Center, Madison, WI
 2010 Tenure promotion package, outside reviewer, Iowa State University
 2013 NIH, Special Emphasis Panel, R13 Conference Review
 2013 Tenure promotion package, outside reviewer, Virginia Tech University

Ad hoc reviewer

Journals: *Applied and Environmental Microbiology*, *FEMS Microbiology Ecology*, *Journal of Food Science*, *Food Microbiology*, *International Journal of Food Microbiology*, *Proceedings of the National Academy of Science*, *World Journal of Microbiology & Biotechnology*, *Journal of Bacteriology*, *Journal of Clinical Microbiology*, *Letters in Applied Microbiology*, *Extremophiles*

Grants: USDA, National Research Initiative Competitive Grants Program; USDA, Small Business Innovation Research Program; HATCH, University of Wisconsin–Madison; NIH, Food and Waterborne Diseases Integrated Research; Florida, Maryland, and Texas Sea Grant Programs; National Live Stock and Meat Board; Tropicana Inc.; University–Industry Relations, University of Wisconsin–Madison; The Wellcome Trust; Wisconsin Milk Marketing Board; International Foundation for Science