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*My last promotion was in 1995.*

**Education:** Ph.D. Food Science with Biochemistry minor, University of Minnesota, 1981.  
M.S. Biological Sciences, University of Delaware, 1977.  
B.S. Biology, Elizabethtown College (PA), 1973.

**Previous professional positions:** 1984-95 Assistant Professor/Associate Professor,  
University of Delaware. 1983-84 Postdoctoral Associate, Department of Agronomy,  
Cornell University. 1981-82 Visiting Assistant Professor, Dept. Nutrition & Food Science,  
Drexel Univ.

**Publications/review papers/book chapters/patent since 2000:**

Markland, S.M., Farkas, D.F., Kniel, K.E., and Hoover, D.G. 2013. Psychrotolerant sporeformers: An emerging challenge for low-temperature storage of minimally processed foods. *Foodborne Path. Dis.* (accepted 1/7/13).

Markland, S.M., Shortlidge, K., Hoover, D.G., Yaron, S., Patel, J., Sharma, M., and Kniel, K.E. 2013. Survival of pathogenic *Escherichia coli* on basil, lettuce, and spinach. *Zoonoses Publ Health* (accepted 11/30/12).

Rodriguez-Palacios, A., J.T. LeJeune and D.G. Hoover. 2012. *Clostridium difficile*: An emerging food safety risk. *Food Technol.* 66:40-49.

Ingram, D.T., Callahan, M.T., Ferguson, S., Hoover, D.G., Chiu, P.C., Shelton, D.R., Millner, P.D., Camp, M.J., Patel, J.R., Kniel, K.E. and Sharma, M. 2012. Use of zero-valent iron biosand filters to reduce *Escherichia coli* O157:H12 in irrigation water applied to spinach plants in a field setting. *J. Appl. Microbiol* 112: 551-560.

Kisluk, G., D.G. Hoover, K.E. Kniel and S. Yaron. 2011. Quantification of low and high levels of *Salmonella enterica* serovar Typhimurium on leaves. *LWT – Food Sci. Technol.* Doi:10.1016/j.lwt.2011.07.029.

Black, E.P., J. Cascarino, D. Guan, K.E. Kniel, D.T. Hicks, L.F. Pivarnik and D.G. Hoover. 2010. Coliphage as pressure surrogates for enteric viruses in foods. *Innovat. Food Sci. Emerg. Technol.* 11:239–244.

Hirneisen, K.A., Black, E.P., Cascarino, J.L., Fino, V.R., Hoover, D.G., and Kniel, K.E. 2010. Viral inactivation in foods: a review of traditional and novel food-processing technologies. *Compr. Rev. Food Sci. Food Saf.* 9: 3-20.

Wei, J., I.M. Shah, S. Ghosh, J. Dworkin, D.G. Hoover and P. Setlow. 2010. Superdormant spores of *Bacillus* species germinate normally with high pressure, peptidoglycan fragments, and bryostatin. *J. Bacteriol.* 192:1455–1458.

Hicks, D.T., L.F. Pivarnik, R. McDermott, N. Richard, D.G. Hoover and K.E. Kniel. 2009.

Consumer awareness and willingness to pay for high-pressure processing of ready-to-eat food, *J. Food Sci. Education* 8:32-38.

Hirneisen, K.A., D.G. Hoover, and K.E. Knierl. 2009. Isolation and infectivity of potential foodborne viral pathogens by immunomagnetic capture. *Food Prot. Trends* 29:564-570.

Wei, J., P. Setlow and D.G. Hoover. 2009. Effects of moderately high pressure plus heat on the germination and inactivation of *Bacillus cereus* spores lacking proteins involved in germination. *Lett. Appl. Microbiol.* 49:646-651.

Neetoo, H., M. Ye, H. Chen, R.D. Joerger, D.T. Hicks, and D.G. Hoover. 2008. Use of nisin-coated plastic films to control *Listeria monocytogenes* and spoilage microbiota on vacuum-packaged cold-smoked salmon. *Int. J. Food Microbiol.* 122:8-15.

Sharma, M., A.E.H. Shearer, D.G. Hoover, M.N. Liu, M.D. Solomon and K.E. Knierl. 2008. Comparison of hydrostatic and hydrodynamic pressure to inactivate foodborne viruses. *Innovat. Food Sci. Emerg. Technol.* 9:418-422.

Black, E.P., P. Setlow, A.D. Hocking, C.M. Stewart, A.L. Kelly and D.G. Hoover. 2007. Response of spores to high-pressure processing. *Comp. Rev. Food Sci. Food Safety* 6(4):103-119.

Black, E.P., J. Wei, S. Adluri, D.E. Cortezzo, K. Koziol-Dube, D.G. Hoover and P. Setlow. 2007. Analysis of factors influencing the rate of germination of spores of *Bacillus subtilis* by very high pressure. *J. Appl. Microbiol.* 102:65-76.

Vepachedu, V.R., K. Hirneisen, D.G. Hoover and P. Setlow. 2007. Studies of the release of small molecules during pressure germination of spores of *Bacillus subtilis*. *Lett. Appl. Microbiol.* 45(3):342-348.

Grove, S.F., A. Lee, T. Lewis, C.M. Stewart, H. Chen, and D.G. Hoover. 2006. Inactivation of foodborne viruses of significance by high pressure and other processes. *J. Food Prot.* 69: 957-968.

Guan, D., R.D. Joerger, K.E. Knierl, K.R. Calci, D.T. Hicks, L.F. Pivarnik and D.G. Hoover. 2006. Effect of high hydrostatic pressure on four genotypes of F-specific RNA bacteriophages (f2, GA, Q $\beta$  and SP). *J. Appl. Microbiol.* 102: 51-56.

Guan, D., H. Chen, E.Y. Ting, and D.G. Hoover. 2006. Inactivation of *Staphylococcus aureus* and *Escherichia coli* O157:H7 under isothermal-endpoint pressure conditions. *J. Food Engin.* 77(3):620-627.

Guan, D., K. Knierl, K.R. Calci, and D.G. Hoover. 2006. Response of four types of coliphages to high hydrostatic pressure. *Food Microbiol.* 23(6): 546-551.

Hoover, D.G., D. Guan and H. Chen. 2006. High hydrostatic pressure processing. *In: Advances in Microbial Food Safety*, V. Juneja (ed.), Chap 10, ACS Publications, New York.

Kingsley, D. H., D. Guan, D. G. Hoover, and H. Chen. 2006. Inactivation of hepatitis A virus by high pressure processing: The role of temperature and pressure oscillation. *J. Food Prot.* 69:2454-2459.

Black, E., K. Koziol-Dube, D. Guan, D. Cortezzo, D.G. Hoover, and P. Setlow. 2005. Studies on the triggering of germination of *Bacillus subtilis* spores by action of high hydrostatic pressure on nutrient germinant receptors. *Appl. Environ. Microbiol.* 71: 5879-5887.

Chen, H., D. Guan and D.G. Hoover. 2005. Sensitivity of foodborne pathogens to high hydrostatic pressure. *J. Food Prot.* 69(1): 130-137.

Chen, H., D.G. Hoover, and D.H. Kingsley. 2005. Temperature and treatment time influence high hydrostatic pressure inactivation of feline calicivirus, a norovirus surrogate. *J. Food Prot.* 68(11): 2389-2394.

Guan, D., H. Chen, and D.G. Hoover. 2005. Inactivation of *Salmonella* Typhimurium DT 104 in UHT whole milk using high hydrostatic pressure. *Intl. J. Food Microbiol.* 104(2):145-153.

Kingsley, D.H., D. Guan, and D.G. Hoover. 2005. Hydrostatic pressure inactivation of hepatitis A virus in strawberry purees and green onions. *J. Food Prot.* 68(8):1748-1751.

Chen, H., R.D. Joerger, D.H. Kingsley, and D.G. Hoover. 2005. Pressure Inactivation Kinetics of phage  $\lambda$  CI857 and Comparison with Hepatitis A Virus. *Journal of Food Protection.* 67:505-511.

Chen, H., R. D. Joerger, D. H. Kingsley, and D. G. Hoover. 2004. Pressure inactivation kinetics of phage  $\lambda$  CI857 and comparison to hepatitis A virus. *J. Food Prot.* 67:505-511.

Chen, H., and D.G. Hoover. 2003. Modeling the combined effect of high hydrostatic pressure and mild heat on the inactivation kinetics of *Listeria monocytogenes* in whole milk. *Innovat. Food Sci. Emerg. Technol.* 4:25-34.

Chen, H., and D.G. Hoover. 2003. Pressure inactivation kinetics of *Yersinia enterocolitica* ATCC 35669. *Int. J. Food Microbiol.* 87(1-2):161-171.

Chen, H., and D.G. Hoover. 2003. Bacteriocins and their food applications. *Comp. Rev. Food Sci. Food Safety* 2(3): 81-100.

Hoover, D.G. 2003. Remarks on food safety in dealing with genetically modified foods. *Richmond J. Law Technol.* 10(2):7, at <http://law.richmond.edu/jolt/article7.pdf>

Kingsley, D.H., D.G. Hoover, E. Papafragkou, and G.P. Richards. 2002. Inactivation of hepatitis A virus and a calicivirus by high hydrostatic pressure. *J. Food Protect.* 65(10):1605-1609.

Paidhungat, M., B. Setlow, W.B. Daniels, D.G. Hoover, E. Papafragkou, and P. Setlow. 2002. Mechanisms of induction of germination of *Bacillus subtilis* spores by high pressure. *Appl. Environ. Microbiol.* 68(6):3172-3175.

IFT Expert Report: Emerging microbiological food safety issues: Implications for control in the 21<sup>st</sup> Century. 2002. With others, on IFT website [www.ift.org](http://www.ift.org).

Hoover, D.G. 2001. Microbial inactivation by high hydrostatic pressure. *In* Inactivation of foodborne microorganisms. J.N. Sofos & V.K. Juneja, eds. Marcel Dekker, Inc., New York.

Farkas, D.F., and D.G. Hoover. 2000. High pressure processing. Kinetics of microbial inactivation for alternative food processing technologies. *J. Food Sci. Suppl.:* 47-64.

Hoover, D.G. 2000. Ultrasound. Kinetics of microbial inactivation for alternative food processing technologies. *J. Food Sci. Supplement:* 93-95.

Joerger, R.D., S.F. Barefoot, K.M. Harmon, D.A. Grinstead, C.G. Nettles, and D.G. Hoover. 2000. Bacteriocins. *In* Encyclopedia of Microbiology. Vol. 1. J. Lederberg, ed. Second edition, pp. 383-397. Academic Press, Inc., New York.

Shearer, A.E.H., C.P. Dunne, A. Sikes, and D.G. Hoover. 2000. Bacterial spore inhibition and inactivation in foods by pressure, chemical preservatives and mild heat. *J. Food Protect.* 63(11): 1503-1510.

Shearer, A.E.H., J.S. Paik, S.L. Haynie, M.J. Kelley, and D.G. Hoover. 2000. Potential of an antibacterial ultraviolet-irradiated nylon film. *Biotechnol. Bioengn.* 67(2): 141-146.

Stewart, C.M., C.P. Dunne, A. Sikes, and D.G. Hoover. 2000. Sensitivity of spores of *Bacillus subtilis* and *Clostridium sporogenes* PA3679 to combinations of high hydrostatic pressure and other process parameters. *Innovat. Food Sci. Emerg. Technol.* 1(1): 49-56.

*Patent:* #6,110,516. Awarded 9/29/2000. Process for treating foods using saccharide esters and superatmospheric hydrostatic pressure. With C.M. Stewart, C.P. Dunne, and A. Sikes.

*Recently submitted:* 3/3/2013: Hoover, D.G. & A. Rodriguez-Palacios. Transmission of *Clostridium difficile* in foods. *In: Foodborne Illness, Infectious Disease Clinics of North America.* Elsevier, Philadelphia.

### **Grant activity:**

#### *Grant proposal currently under review*

Hoover, D.G., R.D. Joerger & J. Lee. 2013. Evaluation of *Clostridium difficile* as an emerging food safety issue. USDA-AFRI.

#### *Grants received since 2000 as PI or a co-PI*

Kniel, K.E., D.G. Hoover, A.E.H. Shearer, O.S. Snider, J. Gleason, & B. Chamberlain. 2013. Development and assessment of an educational module for college students for conceptual and attitudinal changes towards food safety systems. USDA-HEC \$265,485.

Kniel, K.E., D.G. Hoover, P.C. Chiu, M. Sharma, D. Sheldon, & J. Patel. 2009. Mitigation of irrigation water using zero-valent iron treatment. CPS & California Leafy Greens Research Board, \$236,240.

Hoover, D.G., K.E. Kniel, S. Yaron, M. Sharma, & J. Patel. 2009. Persistence and detection of norovirus, *Salmonella*, and pathogenic *Escherichia coli* on basil and leafy greens. CPS-BARD, \$187,500.

Chen, H., Hoover, D., Joerger, R., & K. Kniel. 2007. USDA Higher Education Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Program. Innovative Food Processing and Preservation Technologies to Ensure Food Safety. (\$156,000 from the USDA and \$12,000 from the College).

Hoover, D.G., D.T. Hicks & L.F. Pivarnik. 2004. Inactivation of viruses by pressure in ready-to-eat food products. USDA-NIFSI, \$338,172.

Hoover, D.G. & P. Setlow. 2003. Mechanisms Of *Bacillus* Spore Inactivation By Pressure. USDA-NRI, \$295,999.

Hoover, D.G. & W.B. Daniels. 2000. Mortality Kinetics Of Bacterial Populations Exposed To High Pressure. USDA-NRI, \$271,026.

*Grant proposals not funded as PI since 2000*

Hoover, D.G., R.D. Joerger, K.E. Kniel, O.S. Snider, B. Wiggins, T. Broughton, & J. Lee. 2011. Reduction of *Campylobacter* and *Salmonella* in ready-to-cook poultry products. USDA-AFRI.

Hoover, D.G., K.E. Kniel, & S. Yaron. 2010. Correlations of pathogen inactivation to changes in compost microbiota. BARD.

Hoover, D.G. & K.E. Kniel 2010. Parasite Awareness Via Innovative Media. USDA-NIFSI.

Hoover, D.G, K.E. Kniel, M. Parent, M. Sharma, & C. Keeler. 2010. Zoonotic transfer potential of avian pathogenic *Escherichia coli*. USDA-NRI.

Hoover, D.G. & K.E. Kniel. 2008. Inactivation of human infectious viruses by pressure and temperature. USDA-NRI. Resubmission.

Hoover, D.G. & K.E. Kniel. 2007. Inactivation of human infectious viruses by pressure and temperature. USDA-NRI.

**UD teaching activity:**

1984-2012 FOSC/ANFS 439/639 *Food Microbiology* (4 credits/with laboratory)

1985-2007 FOSC 265 *Food Science Seminar* (1 credit)

1985-1997 FOSC 201 *Food Principles* (2 credits/lecture)

1985-2001 FOSC 449/649 *Fermentation Technology/Food Biotechnology* (4 credits/with laboratory)

1999-2000 FOSC 102 *Food for Thought* (3 credits/lecture)

2000-2013 FOSC/ANFS 305-010 *Food Science*; Honors -080 joint with ANFS

102-080 (Kniel) since 2010; Online -194/-195 since 2007 (3 cr/lecture).

2007 FOSC 102 *Food for Thought* (3 credits/lecture), 25% of course with Kniel, Joerger and Chen.

2008 ANFS 329 *Food Analysis* (4 credits), Team-taught with Shearer, Kniel, Joerger, Chen, and Black.

2008-2012 ANFS 159 *Topics in Food Science* (1 credit/PBL-style)

2010-2012 ANFS 512 *Food Science Connections* (2 credits/seminar type), offered in conjunction with UMaryland-College Park (M. Lo) via Adobe Connect. Other partners in 2012: Drexel University and UMES.

**Workload since 2000:**

Year	Teaching	Research	Service
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2011	35	60	5	100
2010	42	53	5	100
2009	35	60	5	100
2008	33	62	5	100
2007	37	55	8	100
2006	33	59	8	100
2005	38	57	5	100
2004	29	71	0	100
2003	Performance appraisals postponed			
2002	31	69	0	100
2001	24	76	0	100
2000	20	80	0	100

**Service activity:**

*Editorial boards (current): Journal of Food Science (Associate editor – Food Engineering & Physical Properties), Applied & Environmental Microbiology, Food Biotechnology, Innovative Food Science & Emerging Technologies, International Dairy Journal, Journal of Food Protection, Journal of Food Safety, and LWT – Food Science and Technology.*

*UD:* Over the years I've served on various committees at the department, college and university levels including recruiting and promotional events. As an example, I was active in the Executive Committee of the Faculty Senate (01-05 Secretary; 05-08 President-elect/President/Past-president; 08-10 Parliamentarian) and given a Faculty Senate Service Recommendation Award in 2009. I currently serve on the University P&T Committee; next year I will serve as its chair. Other examples of past service activities over the years on-campus have ranged from department Graduate Coordinator (FSHN/FOSC; 1985-1996) to Food Science Club advisor (1984-1998).

*IFT:* IFT has been my primary professional organization for presentations, student activities and attendance. I've served on numerous IFT workgroups, panels, subcommittees, committees and task forces and in workshops. Most of my IFT program activities have been division-related; I was chair of the Nonthermal Processing Division (08-09), chair of the Food Microbiology Division (09-10) and newsletter editor of the Biotechnology Division from 1985 to 2010. I was made an IFT Fellow in 2004. I was recently elected to serve a three-year term on the IFT Board of Directors.

Other active roles: USDA-FSIS NACMCF (reappointed for a second term in 2013, Committee on Noroviruses) and the Atkins Nutritionals Scientific Advisory Board (2004-continuing).

**Personal statement on research, teaching and service**

*Research:* I am in the home stretch of my career at UD. I would like to hit at least one more decent grant as PI before I'm out to pasture. Currently I have no research funds and consequently no students in my laboratory and I would very much like to change that situation. I'm hopeful of submitting at least two grant proposals a year as PI; one to the USDA and one to another funding possibility, such as CPS. I am trying to get a foot in the door with *C. difficile* submitting a USDA grant proposal with Rolf Joerger and intend to work on some more produce safety projects with Kali Kniel and Manan Sharma. Any other proposals in which I can contribute I will gladly serve as a co-PI. In the current funding era, team-building is usually an absolute necessity. Certainly any opportunities with regional industry is desirable for pursuit as well; however, over the past several years potential interactions with the food industry related to interactive projects have been rather lean.

*Teaching:* I don't plan any new courses at the moment; however, I am usually on the lookout for new angles to pursue with my courses to try to keep them fresh for myself and for my students. I much prefer person-to-person contact over online courses. My cohort in ANFS 512, Martin Lo, probably will not be participating next year in our Adobe Connect effort, so I will be looking for another university partner to co-organize and assist with the course, preferably someone in another part of the country. Although the interactive technology isn't always reliable, it does open up possibilities to interact with people on a Friday afternoon that ordinarily wouldn't happen. With Mark Rieger's ambitions for interaction with Sicily, Kali Kniel and I have been discussing the concept of a study-abroad course in Sicily for winter 2015. The island appears to harbor a diversity of food industry segments that produce a broad range of products making the potential of a study-abroad course there viable.

*Service:* I plan to continue on what I've been doing in the service area. It keeps things interesting, helps networking, and I believe senior faculty should play an active role anyway. In order to make better use of the farm we are trying to implement small-scale (*i.e.*, artisan) commercial cheese-making in the basement of the Newton Building. The ultimate goal is to reliably make premium aged cheeses for sale in the Creamery.