

## Pratik Banerjee, Ph.D., M.Tech.

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Lab Page: [www.BanerjeeLab.com](http://www.BanerjeeLab.com)

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### RESEARCH FOCUS

Studying the attribution of environmental sources in pathogen transmission; microbial food safety; biosensor based rapid detection of pathogens, toxins, and contaminants in food, environmental (water, soil, air), and clinical samples; developing metagenomic and molecular approaches to understand microbial diversity, virulence, and antibiotic resistance properties

### EDUCATION

- 2008 **Ph. D.** (Food Science), Center for Food Safety Engineering, Department of Food Science, Purdue University, West Lafayette, Indiana, USA
- 2000 **M. Tech.** (Biotechnology), Department of Life Science and Biotechnology, Jadavpur University, Kolkata (Calcutta), India
- 1997 **B. Tech.** (Dairy Technology), Faculty of Dairy Technology, West Bengal University of Animal & Fishery Sciences, Kolkata (Calcutta), India

### PROFESSIONAL APPOINTMENTS

- Sep 2018 - to date Associate Professor (*tenured*), Division of Epidemiology, Biostatistics, & Environmental Health Science, School of Public Health, University of Memphis, Memphis, TN
- Aug 2012 – Aug 2018 Assistant Professor, Division of Epidemiology, Biostatistics, & Environmental Health Science, School of Public Health, University of Memphis, Memphis, TN
- Jan 2017 - to date Adjunct Member, Bioinformatics Program, Department of Biology, University of Memphis, Memphis, TN
- Aug 2009 – Jul 2012 Assistant Professor, Department of Food & Animal Sciences, Alabama A&M University, Huntsville, AL
- Apr 2008 – Jul 2009 Principal Scientist, LacPro Industries, LLC, Fort Wayne, IN
- Mar 2008 - Apr 2008 Post-doctoral Research Fellow, Whistler Center for Carbohydrate Research, Department of Food Science, Purdue University, West Lafayette, IN
- Aug 2003 – Feb 2008 Graduate Research Assistant, Molecular Food Microbiology Laboratory, Department of Food Science, Purdue University, West Lafayette, IN
- Jun 2006 - Aug 2006 Intern, R & D, Assay & Product Development, Innovative Biosensors, Inc., College Park, MD
- Apr 2002 – Jun 2003 Senior Research Fellow (SRF), Council of Scientific & Industrial Research, Govt. of India, Department of Pharmaceutical Technology, Jadavpur University, Calcutta, India
- Sep 2002 - Jun 2003 Research Associate, R & D, Sinha Institute of Medical Science & Technology, Calcutta, India
- Jul 2000 – Jul 2001

## PROFESSIONAL CERTIFICATES

- Food Safety Manager Certification, National Registry of Food Safety Professionals, Environmental Health Testing, LLC, USA
- Better Process Control School Certification as prescribed by FDA: 21CFR 108.25(f); 108.35(g); 113.10; and 114.10. (1995), Extension Food Safety School, Purdue University, IN
- Certification in “Development and Implementation of HACCP and Prerequisite Programs”, Dept. Food Science, Purdue University, IN

## PROFESSIONAL TRAINING RECEIVED

2013	NIEHS Nano Exposure Workshop
2011	Mentoring – Changing Lane (4h), University of Wisconsin
2010	Facebook as a Tool of Instruction (3h), CETL, Alabama A&M University
2010	Agri-based business in 21 <sup>st</sup> century
2009	Indiana SBIR/STTR Workshop, Indiana Economic Development Corporation
2008	Writing Successful Business Plan – NIIC, Fort Wayne (2 Days)
2008	Entrepreneurship – how to start your small business (2 h)

## PROFESSIONAL AWARDS AND HONORS

2018	Biologistics Research Fellow, FedEx Institute of Technology, Memphis
2017	Food Science Early Career Award, Department of Food Science, Purdue University
2017	Smart City Fellow, FedEx Institute of Technology, Memphis
2016	Outstanding Contribution in Reviewing, The Editors of LWT - FOOD SCIENCE AND TECHNOLOGY, Elsevier, Amsterdam, The Netherlands
2014	First Time Principal Investigator recognition, University of Memphis Vice President for Research, Memphis, TN
2013-16	Member, FDA Advisory Panel of Auburn University Food Systems Institute
2013	Nominated and Elected as <i>Top Public Health Professors &amp; Administrators</i> by CNA Class (CNAClasses.org)
2012-16	Member, Review Panel, USDA National Institute of Food and Agriculture
2006- pres.	Nominated to Phi Tau Sigma, Food Science honor society
2012	Recipient Secretary of Section of Merit Award, for the IFT South Eastern Section
2011	Elected as the Secretary, IFT South Eastern Section
2006	<i>Vince Lombardi Employee of the Month</i> (June-July), Innovative Biosensors, Inc., MD
2002	Government of India Senior Research Fellowship
1999-2000	Department of Biotechnology, Govt. of India fellowship
1999	Tata Institute Scholar, Tata Institute of Fundamental Research (TIFR), Visiting Student Research Program (VSRP) scholar
1993-1997	University Grants Commission fellowship, Govt. of India
1993	National Merit Scholarships, Govt. of India, for Higher Secondary Exam rank
1991	National Merit Scholarships, Govt. of India, for Secondary Exam rank

## REFEREED PUBLICATIONS

\* Denotes Corresponding Author; <sup>GR</sup> Denotes Graduate Advisee (of Pratik Banerjee).

1. Kovalic AJ, **Banerjee P**, Tran QT, Singal AK, Satapathy SK\*. Genetic and Epigenetic Culprits in the Pathogenesis of Nonalcoholic Fatty Liver Disease. *J Clin Exp Hepatol*. 2018; (in press)
2. Higgins D<sup>GR</sup>, Pal C, Sulaiman IM, Jia C, Zerwekh JT, Dowd SE, **Banerjee P\***. Application of high-throughput pyrosequencing in the analysis of microbiota of food commodities procured from small and large retail outlets in a U.S. metropolitan area – A pilot study. *Food Res Int*. 2018; 105: 29-40.
3. Sulaiman IM\*, **Banerjee P**, Hsieh YH, Miranda N, Simpson S, Kerdahi K. Rapid detection of *Staphylococcus aureus* and related species isolated from food, environment, cosmetics, medical device, and clinical samples using VITEK MS microbial identification system. *J AOAC Int*. 2018; 101(4):1135-1143.
4. Adhikari A\*, Kurella S, **Banerjee P**, Mitra A. Aerosolized bacteria and microbial activity in dental clinics during cleaning procedures. *J Aerosol Sci*. 2017;114: 209-218.
5. **Banerjee P\***, Sulaiman IM, Schneider G, Ray U, Jagadeesan B. Novel Microbial Diagnostic Methods for Clinical, Environmental, and Food Samples. *Biomed Res Int*. 2017; 2017: 3942801.
6. Miranda N, **Banerjee P**, Simpson S, Kerdahi K. Sulaiman IM\*. Molecular surveillance of *Cronobacter* spp. isolated from a wide varieties of foods from 44 different countries by sequence typing of 16S rRNA, *rpoB* and O-antigen genes. *Foods*. 2017; 6(5), 35:E36.
7. Mukherjee N<sup>GR</sup>, Patra C, Dowd SE, Chauhan BV<sup>GR</sup>, Bartelli D, **Banerjee P\***. Microbial diversity of source and point-of-use water in rural Haiti – a pyrosequencing-based metagenomic survey. *PLoS One*. 2016; 11(12):e0167353.
8. Mukherjee N<sup>GR</sup>, Sulaiman IM, **Banerjee P\***. Characterization of methicillin-resistant *Staphylococcus aureus* isolates from fitness centers in the Memphis metropolitan area, Tennessee. *Am J Infect Control*. 2016;44(12): 1681–1683.
9. Kaur H, Nyochembeng LM., Mentreddy SR, **Banerjee P**, Cebert E. Assessment of the antimicrobial activity of *Lentinula edodes* against *Xanthomonas campestris* pv. *vesicatoria*. *Crop Prot*. 2016;89: 284-288.
10. Kennedy NM<sup>GR</sup>, Mukherjee M<sup>GR</sup>, **Banerjee P\***. *Escherichia coli* O157:H7 Cells Exposed to Lettuce Leaf Lysates in Refrigerated Conditions Exhibit Differential Expression of Selected Virulence and Adhesion-related Genes with Altered Mammalian Cell Adherence. *J Food Prot*. 2016;79(7): 1259-1265.
11. Montgomery NL<sup>GR</sup>, **Banerjee P\***. Inactivation of *Escherichia coli* O157:H7 and *Listeria monocytogenes* in biofilms by pulsed ultraviolet light. *BMC Res Notes*. 2015; 8:235.
12. Mukherjee N<sup>GR</sup>, Dowd SE, Wise A, Kedia S, Vohra V, **Banerjee P\***. Diversity of bacterial communities of fitness center surfaces in a U.S. metropolitan area. *Int J Environ Res Public Health*. 2014; 11(12): 12544–61.
13. Najafi R<sup>GR</sup>, Mukherjee S, Hudson J, Sharma A, **Banerjee P\***. Development of a rapid capture-cum-detection method for *Escherichia coli* O157 from apple juice comprising nano-immunomagnetic separation in tandem with surface enhanced Raman scattering. *Int J Food Microbiol*. 2014;189:89–97.
14. **Banerjee P\***, Kintzios S, Prabhakarapandian B. Biotxin detection using cell-based sensors. *Toxins*. 2013;5(12):2366–83.
15. **Banerjee P**, Bhunia AK\*. Cell-based biosensor for rapid screening of pathogens and toxins. *Biosens Bioelectron*. 2010;26(1):99–106.

16. Bueno VF, **Banerjee P**, Banada PP, José de Mesquita A, Lemes-Marques EG, Bhunia AK\*. Characterization of *Listeria monocytogenes* isolates of food and human origins from Brazil using molecular typing procedures and *in vitro* cell culture assays. *Int J Environ Health Res.* 2010;20(1):43–59.
17. **Banerjee P**, Franz B, Bhunia AK\*. Mammalian cell-based sensor system. *Adv Biochem Eng Biotechnol.* 2010;117:21–55.
18. **Banerjee P\***, Merkel GJ, Bhunia AK. *Lactobacillus delbrueckii* ssp. bulgaricus B-30892 can inhibit cytotoxic effects and adhesion of pathogenic *Clostridium difficile* to Caco-2 cells. *Gut Pathog.* 2009;1(1):8.
19. **Banerjee P**, Bhunia AK\*. Mammalian cell-based biosensors for pathogens and toxins. *Trends Biotechnol.* 2009;27(3):179–88.
20. **Banerjee P**, Lenz D, Robinson JP, Rickus JL, Bhunia AK\*. A novel and simple cell-based detection system with a collagen-encapsulated B-lymphocyte cell line as a biosensor for rapid detection of pathogens and toxins. *Lab Invest.* 2008;88(2):196–206.
21. **Banerjee P**, Morgan MT, Rickus JL, Ragheb K, Corvalan C, Robinson JP, Bhunia AK\*. Hybridoma Ped-2E9 cells cultured under modified conditions can sensitively detect *Listeria monocytogenes* and *Bacillus cereus*. *Appl Microbiol Biotechnol.* 2007;73(6):1423–34.
22. Bhunia AK\*, Banada P, **Banerjee P**, Valadez A, Hirlleman ED. Light scattering, fiber optic- and cell-based sensors for sensitive detection of foodborne pathogens. *J Rapid Methods Autom Microbiol.* 2007;15(2):121–45.
23. **Banerjee P**, Banada PP, Rickus JL, Morgan MT, Bhunia AK\*. A portable cell-based optical detection device for rapid detection of *Listeria* and *Bacillus* toxins. *Proc SPIE.* 2005; 5996:5996021-5996027.
24. Mukherjee B\*, Patra B, Mahapatra S, **Banerjee P**, Tiwari A, Chatterjee M. Vanadium--an element of atypical biological significance. *Toxicol Lett.* 2004 Apr 21;150(2):135–43.
25. **Banerjee P**, Chatterjee M\*. Antiproliferative role of vitamin D and its analogs--a brief overview. *Mol Cell Biochem.* 2003;253(1-2):247–54.
26. Chakraborty K, Khan GA, **Banerjee P**, Ray U, Sinha AK\*. Inhibition of human blood platelet aggregation and the stimulation of nitric oxide synthesis by aspirin. *Platelets.* 2003;14(7-8):421–7.
27. Kanna P-S, Mahendrakumar CB, Chakraborty T, Hemalatha P, **Banerjee P**, Chatterjee M\*. Effect of vanadium on colonic aberrant crypt foci induced in rats by 1,2 dimethyl hydrazine. *World J Gastroenterol.* 2003 May;9(5):1020–7.

### **Book Chapters**

28. Sarkar P, Panigrahi SS, Nayak A, Prasad K, Roy E, **Banerjee P\***, 2017. Nanosensors in food safety, *in*: Kintzios S. (Ed.), *Portable Biosensors and Point-of-Care Systems*, The Institution of Engineering and Technology (IET) Publishing, Stevenage, SG1 2AY, United Kingdom. pp. 183–207.
29. Kintzios S, **Banerjee P\***, 2015. Mammalian cell-based sensors for high throughput screening for detecting chemical residues, pathogens, and toxins in food, *in*: Bhunia, A.K., Kim, M.S., Taitt, C.R. (Eds.), *High Throughput Screening for Food Safety Assessment*, Woodhead Publishing Series in Food Science, Technology and Nutrition. Woodhead Publishing (Elsevier imprint), pp. 123–146.

### **Edited Journal Issue** (\*Lead Guest Editor)

30. **Banerjee P\***, Sulaiman IM, Schneider G, Ray U, Jagadeesan B, 2017. Special Issue: “Novel Microbial Diagnostic Methods for Clinical, Environmental, and Food Samples”, *Biomed Res Int.*

### ***Manuscripts under review***

1. Kaushal A, Zhang H\*, Karmaus WJ, **Banerjee P**, Tsai SF, Wen HJ, Arshad SH, Wang SL. Longitudinal Epigenome-Wide Study Identifies DNA Methylation Sites Associated with Immunoglobulin E. (*under review*)
2. Kaur H\*, Nyochembeng LM, **Banerjee P**, Cebert E, Mentreddy SR. Optimization of fermentation conditions for shiitake mushroom (*Lentinula edodes* (Berk.) Pegler) strains for minimizing oxalic acid production while maintaining the antibacterial activity as a potential biopesticide. (*under review*)

### ***Manuscripts in preparation***

3. Sarkar P, **Banerjee P\***. Nanotechnology-inspired biosensors for microbial food safety applications. (*in preparation*)
4. Pal C, Higgins D<sup>GR</sup>, Sulaiman IM, **Banerjee P\***. A comparative analysis of shotgun metagenomics with high and low sequence coverage in detecting antibiotic resistance genes from food samples. (*in preparation*)
5. Mukherjee N<sup>GR</sup>, Ravi DT<sup>GR</sup>, Dunn JR, Sweat D, Nolan VG, **Banerjee P\***. Non-foodborne environmental exposures attributable to non-typhoidal salmonellosis by certain *Salmonella* serotypes: A case-case study. (*in preparation*)

### **INTELLECTUAL PROPERTY**

1. Bojrab GG, **Banerjee P**, Novel *Lactobacillus bulgaricus* strain and compositions, [US Patent Application Serial Nos. 11/473,654 and 11/473,468; Continuation of Patent Filed in 2008]
2. **Banerjee P**, Bhunia AK, Cell-based biosensor for multianalyte screening of pathogens and toxins associated with foodsafety and biosecurity, 2009 [PRF Ref. No. 65121]

### **SCIENTIFIC PRESENTATIONS & INVITED TALKS**

#### ***Peer-reviewed conference presentation***

1. Higgins D, Sulaiman IM, Hanna S, Dunn J, **Banerjee P\***. Status of Selected Virulence Genes in Antibiotic-Resistant and Sensitive *Salmonella* Clinical Isolates from Tennessee, presented at the International Association for Food Protection annual meeting, July 8-11, 2018. Salt Lake City, UT [Poster presentation]
2. Sulaiman IM, **Banerjee P**, Hsieh YH, Miranda N, Simpson S, Kerdahi K. Identification of *Staphylococcus aureus* and Closely Related Species using VITEK<sup>®</sup> MS System and 16S rRNA Sequence Typing, 7<sup>th</sup> Annual FDA Foods and Veterinary Medicine Science and Research Conference, October 17-18, 2017. Washington, DC [Poster presentation]
3. Pal C, Sahoo M, Jayabalan R, Kedia S, Satpathi S, **Banerjee P\***. Natural gut microbiome and resistome in two tribal groups in Eastern India, 4<sup>th</sup> International Symposium on the Environmental Dimension of Antibiotic Resistance, August 13-17, 2017. Lansing, MI [Poster presentation]
4. Higgins D, Pal C, Sulaiman IM, **Banerjee P\***. Microbiota of Retail Foods Available to Population of Different Socioeconomic Status - *Implication to Food Safety*, presented at the International Association for Food Protection annual meeting, July 9-12, 2017. Tampa, FL [Poster presentation]
5. Higgins D, **Banerjee P\***. Comparing Quality and Safety of Foods Sold in Low vs. High Income Neighborhoods, presented at Legislative Plaza, February 8, 2017. Nashville, TN [Poster presentation]
6. Mukherjee N, Higgins D, **Banerjee P\***. Status of Different Virulence Determinants in Drug Resistant and Susceptible *Salmonella* Isolates - A Preliminary Study, presented at Tennessee Department of Health, April 15, 2016. Nashville, TN [Oral presentation]

7. Mukherjee N, Ravi DT, Nolan V, **Banerjee P\***. The Association between Non-foodborne Exposures and the Occurrence of Non-typhoidal Salmonellosis in Tennessee, presented at the International Association for Food Protection annual meeting, July 31 - August 3, 2016. St. Louis, MO [Poster presentation]
8. Gandy T, Mukherjee N, Shah B, Saha S, **Banerjee P**, Adhikari A, Airborne microbial exposure at workers' breathing height in an organic farm of rural Georgia, presented at the 2016 Research Symposium of Georgia Southern University, April 16, 2016. Statesboro, GA [Poster presentation]
9. Mukherjee N, Patra C, Chauhan BV, Bartelli D, **Banerjee P\***. Pyrosequencing Survey of Microbiota of Drinking Water in Rural Haiti, presented at the 28<sup>th</sup> Annual Research Forum at the University of Memphis, March 28, 2016. Memphis, TN [Poster presentation]
10. Adhikari A, Kurella S, **Banerjee P**, Mukherjee N, Gollapudi YMC, Shah B, Bacterial Exposure and Microbial Activity in Dental Clinics during Cleaning Procedures, presented at the 18<sup>th</sup> International Conference on Occupational Health and Safety, March, 24-25, 2016. Miami, FL [Oral presentation]
11. Ravi DT, Mukherjee N, **Banerjee P\***. Association of *Salmonella* serotypes Newport, Javiana and Mississippi with non-foodborne exposures in Tennessee, presented at the 27<sup>th</sup> Annual Research Forum at the University of Memphis, March 30, 2015. Memphis, TN [Poster presentation]
12. Mukherjee N, Ravi DT, **Banerjee P\***. Bacterial Diversity and Prevalence of Methicillin-resistant *Staphylococcus aureus* in Public Fitness Centers in Memphis, presented at the 27<sup>th</sup> Annual Research Forum at the University of Memphis, March 30, 2015. Memphis, TN [Poster presentation]
13. **Banerjee P\***, Cell-based Biosensor for Categorical Detection of Toxic Agents, presented at the Chemical and Biological Defense Science and Technology (CBD S&T) Conference-2015, May 12-14, 2015. St. Louis, MO [Poster presentation]
14. **Banerjee P\***, Kennedy NM, Mukherjee N, Differential Expression of *E. coli* O157:H7 Virulence Genes in Model Ready-to-Eat Produce Microenvironment during Temperature Drop and Refrigeration, presented at the International Association for Food Protection annual meeting, July 25-28, 2015. Portland, OR [Oral presentation]
15. Mukherjee N, Ravi DT, **Banerjee P\***, Bacterial Diversity and Prevalence of Methicillin-resistant *Staphylococcus aureus* on Common Public Fitness Center Surfaces in Memphis Metro Area, presented at the American Public Health Association annual meeting, October 31 - November 4, 2015. Chicago, IL [Poster presentation]
16. Mukherjee N, Ravi DT, Kedia S, Vohra V, **Banerjee P\***, Prevalence of MRSA Strains on Common Fitness Center Surfaces in Memphis Metro Area, presented at Tiger Blue Goes Green Research Contest, University of Memphis, October 7, 2014. Memphis, TN [Poster presentation]
17. **Banerjee P\***, Najafi R, Mukherjee S, Sharma A, Development of a Single Assay Comprising Nano-Immunomagnetic Separation of *Escherichia coli* O157:H7 from Apple Juice Followed by Surface Enhanced Raman Scattering-based Detection, presented at the International Association for Food Protection annual meeting, August 3-6, 2014. Indianapolis, IN [Oral presentation]
18. Mukherjee N, Ravi DT, **Banerjee P\***, Are Fitness Center Equipment Surfaces Reservoirs for Potential *Staphylococcal* Infections? Presented at Tennessee Public Health Association West TN Grand Division Meeting, May 2, 2014. Memphis, TN [Poster presentation]
19. Montgomery NL, Kennedy NM, Herring JL, **Banerjee P\***, Effectiveness of Pulsed-Ultra Violet Light on Biofilms Formed by *E. coli* O157:H7 and *Listeria monocytogenes* - A Comparative Study, presented at the International Association for Food Protection annual meeting, July 22-25, 2012. Providence, RI [Poster presentation]
20. Patterson J, Boateng J, Walker L, **Banerjee P**, Verghese M, Cytotoxicity Effects of Multiple N-Nitrosamines in Human Liver Cell Line Hep2G: Possible Mechanisms of Action, presented at the

Institute of Food Technologists annual meeting, June 25 - 28, 2012. Las Vegas NV [Poster presentation]

21. Brazelton C, Verghese M, and **Banerjee P\***, Growth and survival of selected probiotic bacteria in legume beverages, presented at the Institute of Food Technologists annual meeting, June 11- 14, 2011. New Orleans, LA [Poster presentation]
22. Montgomery NL, Herring JL, **Banerjee P\***, The effect of pulsed ultraviolet light on biofilms formed by *E. coli* O157:H7, presented at the Institute of Food Technologists annual meeting, June 11- 14, 2011. New Orleans, LA [Poster presentation]
23. Herring JL, Coleman SM, Sims A, **Banerjee P**, The impact of selected antioxidants on the safety and shelf-life of meat, presented at the Institute of Food Technologists annual meeting, June 11- 14, 2011. New Orleans, LA [Poster presentation]
24. Kennedy NM, Johnson A, Najafi R, Bhunia AK, **Banerjee P\***, Biosensor for Functional and Rapid Screening of Selected Pathogens and Toxins from Food, selected for presentation at International Association for Food Protection annual meeting, Jul 31-Aug 4, 2011. Milwaukee, WI [Poster presentation]
25. Montgomery NL, Najafi R, **Banerjee P\***, Inactivation of *E. coli* O157:H7 Biofilm by Using Pulsed-Ultra Violet Light, presented at the STEM Day-2011, Apr 20, 2011, at Alabama A&M University, Normal, AL [Poster presentation]
26. Coleman SM, Herring JL, **Banerjee P**, Quantification of various additives and American skullcap (*Scutellaria laterifolia*) and their ability to increase the shelf-life of meat, presented at the Institute of Food Technologists annual meeting, Jul 18, 2010. Chicago, IL [Poster presentation]
27. Kaur H, Nyochembeng LM, **Banerjee P**, Cebert E, Mentreddy SR, Antibacterial activity of mycelial culture fluid from submerged cultivation of Shiitake (*Lentinula edodes*) mycelia *in vitro*, presented at the 2nd Annual Conference of the American Council for Medicinally Active Plants (ACMAP), July 17-20, 2011. Huntsville, AL [Oral presentation]
28. Kaur H, Nyochembeng LM., **Banerjee P**, Mentreddy SR, Antimicrobial Activities of Different Strains of Shiitake Mushroom (*Lentinula edodes*), presented at the Association of Research Directors 16th Biennial Research Symposium, April 10, 2011, Atlanta, GA [Poster presentation]
29. **Banerjee P\***, Bhunia AK, Hand-held biosensor for rapid detection of hemolytic and cytolytic toxins in foods and beverages, presented at the Institute of Food Technologists annual meeting, Jul 17-Jul 22, 2010. Chicago, IL [Poster presentation]
30. **Banerjee P**, Lenz D, Sherman DM, Robinson JP, Bhunia AK, Cell-based biosensor with collagen entrapped Ped-2E9 cells in multi-well plate for rapid detection of viable pathogenic *Listeria* and *Bacillus* cells or toxins in food samples, presented at the Institute of Food Technologists annual meeting, Jul 28-Aug 1, 2007. Chicago, IL [Oral presentation]
31. **Banerjee P**, Lenz D, Sherman DM, Rickus JL, Morgan MT, Robinson JP, Bhunia AK, Cell-Based sensor with collagen encapsulated Ped-2E9 cells for rapid detection of *Listeria* and *Bacillus* toxins, American Society for Microbiology (ASM) General Meeting, May 21-25, 2006. Orlando, FL [Poster presentation]
32. Johnson A, **Banerjee P**, Bhunia AK, Gel encapsulated Ped-2E9 hybridoma as cell-based biosensor for rapid detection of foodborne *Listeria monocytogenes* and *Bacillus cereus* toxins, MARC-AIM presentation, July 2005, Discovery Park, West Lafayette [Poster presentation]
33. **Banerjee P**, Morgan MT, Bhunia AK, Potential use of hybridoma Ped-2E9 cell line in a cell-based biosensor for onsite detection of *Listeria monocytogenes*, USDA-ARS Food Safety Engineering Annual Meeting, November, 2004, Philadelphia [Poster presentation]
34. **Banerjee P**, Chatterjee M, Sinha AK, Protective role of dietary supplementations of vanadium and vitamin D3 in enteropathogenic *Salmonella* infection in broiler chickens, Poster presented at the

Indian Veterinary Association Meeting at the Dept. of Vet Pathobiology, West Bengal University of Animal and Fishery Sciences, January, 2003, Calcutta [Poster presentation]

35. **Banerjee P**, Roy A, Sinha AK, Impairment of Nitric Oxide Synthesis in Acute Myocardial Infarction, (Abstract), IWBS-2000, September, 2000, Calcutta [Oral presentation]
36. Roy A, **Banerjee P**, Sinha AK, Appearance of a Novel Circulating Antibody against Insulin Activated Nitric Oxide Synthase (IANOS) in various kinds of Cancer and its possible use as a Marker Protein in Cancer, IWBS-2000, September, 2000, Calcutta [Poster presentation]
37. **Banerjee P**, Chary KV, Stereospecific Assignments of Methyl Groups Belonging to Valine and Leucine Residues of a Calcium Binding Protein from *Entamoeba histolytica*, VSRP seminar, TIFR, July, 1999 Mumbai [Oral presentation]
38. **Banerjee P**, "Apoptosis - in the light of CAD-ICAD interplay", Seminar presented at the Dept. of Life Sc. & Biotech., Jadavpur University, 1999, Calcutta [Oral presentation]

#### ***Invited Talks/Presentations***

39. Presented a seminar on "*Application of Nanoparticles in Food Safety Diagnostics*" at the Materials Day Event organized by the Institute for Nanomaterials Development and Innovation at the University of Memphis (INDIUM), FedEx Institute of Technology, Memphis [date: October 6, 2017]
40. Presented a seminar on "*Microbial Bioinformatics – a Public Health Perspective*" at the fall 2017 Bioinformatics Seminar Series, FedEx Institute of Technology, Memphis [date: November 10, 2017]
41. Presented seminar on "*City-university research and innovation*" at the FedEx Institute of Technology Smart Cities Seminar, FedEx Institute of Technology, Memphis [date: February 2, 2017]
42. Presented seminar on "*Smart Biosensor Technologies in Environmental and Food Safety Applications*" at the UM/UTHSC Biomedical Engineering Seminar, Department of Biomedical Engineering, University of Memphis [date: April 8, 2016]
43. Presented seminar on "*Microbial Detection in Food Safety and Environmental Health*" at the School of Environmental Studies, Jadavpur University, Kolkata, India [date: December 16, 2014]
44. Invited as an Institutional Seminar Speaker to deliver a lecture on "*Addressing Food and Agricultural Safety - A Global Twenty-first Century Challenge*" at the National Institute of Technology, Rourkela, India [date: December 10, 2014]
45. Presented seminar on "*Smart Biosensor for Foodborne Illness – Aiming to Protect Public Health*" at the University of Memphis Research Foundation Board meeting [date: December 12, 2013]
46. Presented seminar on "*Novel Biosensor Technologies in Environmental and Food Safety Applications*" at the University of Memphis Department of Physics [date: October 17, 2012]
47. Presented seminar on "*High throughput Physiological Biosensing to Screen Toxins in Food and Drugs*" at the Department of Pharmaceutical Technology, Jadavpur University, Kolkata, India [date: May 7, 2012]
48. Presented seminar on "*Rapid Detection of Pathogens and Toxins using Physiological Probes- a New Era of Functional Biosensing*" at the Department of Physiology, West Bengal State University, Barasat, India [date: May 3, 2012]
49. Presented a seminar on "*Development and Evaluation of Food Safety Systems for Developing Nations*" in IFT 2011, AAIFS Symposium- Innovations in food product quality, ingredients, processing, and safety in the Indian subcontinent [June 12, 2011] – as a substitute of Dr. Harsha Thippareddi.
50. Presented a seminar on "*Application of Functional Cell-based Assay in Food Microbiology, Food Safety and in Developing Probiotic Foods*" to the representatives of HudsonAlpha Institute for Biotechnology, Huntsville [date: October 8, 2009]
51. Presented a seminar on "*Using EndNote® - A Powerful Referencing Software to Accelerate Your Thesis/Dissertation, Manuscript or Report Preparation*" at the Phi Tau Sigma Seminar and Interest Meeting [date: September 15, 2009]



52. My students presented a poster titled “*Biosensor for Rapid Detection of Toxins in Foods and Beverages*”, Nicole Kennedy, Adrienne Johnson, Roya Najafi and Pratik Banerjee at the HudsonAlpha Institute for Biotechnology, Huntsville [date: March 23, 2011]

## GRANTS/FUNDING

**Total funding received to date as PI and Co-PI: \$1,346,130 (since joining UofM: \$734,590)**

### External Funding Received

- 1) 2017-2018 **Banerjee, P.** (Co-I), PI: Jia, C. “Antimicrobial Chemicals and Resistance Genes in Indoor Environments” Harvard-JPB Environmental Health Fellowship Program, Harvard University.
- 2) 2015-2016 **Banerjee, P.** (PI of subaward). “Biological Hazards” for Virtual Food Systems Training Consortium Project. A Subcontract on a project funded by US Food and Drug Administration (FDA), United States Department of Health and Human Services.
- 3) 2014-2015 **Banerjee, P.** (PI of subaward). “FDA Voluntary Retail Standards” for Virtual Food Systems Training Consortium Project. A Subcontract on a project funded by US Food and Drug Administration (FDA), United States Department of Health and Human Services.
- 4) 2013-2014 **Banerjee, P.** (PI of subaward). “*E. coli* O157 and non-O157 in Food Safety” for Virtual Food Systems Training Consortium Project. A Subcontract on a project funded by US Food and Drug Administration (FDA), United States Department of Health and Human Services.
- 5) 2013 **Banerjee, P.** (PI of subaward). “Rapid Detection Methods for Food Contaminants” for Virtual Food Systems Training Consortium Project. A Subcontract on a project funded by US Food and Drug Administration (FDA), United States Department of Health and Human Services.
- 6) 2012-2013 **Banerjee, P.** (PI of subaward). “Basic Food Microbiology” for Virtual Food Systems Training Consortium Project. A Subcontract on a project funded by US Food and Drug Administration (FDA), United States Department of Health and Human Services.
- 7) 2011-2014 **Banerjee, P.** (Co-PI), PI: Herring, J. “Building Abilities of Students, Faculty and Alabama A&M University through Workshops in Food & Animal Science”, National Institute of Food and Agriculture, United States Department of Agriculture (USDA-NIFA).
- 8) 2010-2013 **Banerjee, P.** (PI). “Enhancement of Minority Student Participation in Food Safety”, National Institute of Food and Agriculture, United States Department of Agriculture (USDA-NIFA).
- 9) 2010-2013 **Banerjee, P.** (Co-PI), PI: Verghese, M. “Enhancement of Minority Participation in Functional Food Product Development in Food Science Programs”, National Institute of Food and Agriculture, United States Department of Agriculture (USDA-NIFA).
- 10) 2010-2013 **Banerjee, P.** (PI). “Survival and transmission of foodborne pathogen in some plant models”, National Institute of Food and Agriculture, United States Department of Agriculture (USDA-NIFA).
- 11) 2010-2015 **Banerjee, P.** (collaborator), PI: Sharma, G. “Undergraduate Research in Biological Sciences”, Undergraduate Research Mentoring project funded by the National Science Foundation, USA (NSF-URM).

The project supported undergraduate student research in laboratory-based food safety investigation.

Grants #2 through #6 (above) are competitive awards within parent FDA U54 grant “Virtual Food Systems Training Consortium” (4U54 FD004330), Banerjee, P (Co-PI), PI: Curtis, P.

### Internal Funding Received

- 12) 2018 **Banerjee, P.** (PI) “Novel 3D Encapsulation Method and Device for Storage and Transportation of Living Cells for Improved Biologistics Solutions”, FedEx Institute of Technology (Biologistics Research Cluster).
- 13) 2017 **Banerjee, P.** (PI) “Integrated Healthy Homes Assessment and Intervention For Children In Memphis”, FedEx Institute of Technology (Smart City Initiatives).
- 14) 2016-2017 **Banerjee, P.** (PI), Kedia, S. (Co-PI). “Comparative Assessment of Gut Microbiome among Alcohol-dependent and Dually-diagnosed African American Males”, Memphis Research Consortium.
- 15) 2015-2017 **Banerjee, P.** (joint-PI), Jia, C. (PI). “Modification of Weight Status on Effectiveness of In-home Environmental Intervention for Children with Asthma”, Memphis Research Consortium.
- 16) 2013-2014 **Banerjee, P.** (PI). “Long-term Storage of Mammalian Cells for Biosensing Applications”, University of Memphis Faculty Research Grant, Office of VP of Research.
- 17) 2012 **Banerjee, P.** (PI). School of Public Health, University of Memphis, Faculty start-up and Laboratory set-up funds.
- 18) 2009-2010 **Banerjee, P.** (PI). “CBARD Biosensor for Rapid Detection of Food-borne Pathogenic Bacteria and Toxin”, Alabama Agricultural Land Grant Alliance.

### Other Funding Received

- 19) 2008-2009 “Development of a biologic isolated from *Lactobacillus bulgaricus* B-30892 (*L. protectis*<sup>™</sup>) for treatment of recurrent and refractory *Clostridium difficile* associated diarrhea”, received from Indiana Economic Development Corporation (IEDC), Indianapolis through “21<sup>st</sup> Century Fund” mechanism for small business development (awarded to LacPro, LLC, role: scientific contact).
- 20) 2002-2003 “DNA methylation and cancer”, All India Council for Technical Education (AICTE), Govt. of India, Role: Senior Personnel.
- 21) 2002-2003 “The Interaction between Metallothionein, Cadmium and Estrogen Receptor as a Potential Biomarker for Early Detection of Breast Cancer: A Cellular, Biochemical and Immunohistochemical Study”, Council for Scientific and Industrial Research (CSIR), Govt. of India. Role: Senior Research fellowship recipient along with research related funding.

### Proposals Pending

- 1) 2018 **Banerjee, P.** (PI). “Nanoarray Single Platform for Rapid and Simultaneous Detection of Multiple Pathogens from Food”, National Institute of Food and Agriculture, United States Department of Agriculture (USDA-NIFA).
- 2) 2018 **Banerjee, P.** (Co-Investigator). PI: Zawodniok, M. “CPS: Medium: Collaborative Research: Resilient IoT-based Infrastructure Control with Application to Water Management Systems”, National Science Foundation.

## TEACHING

### *Courses Taught at University of Memphis*

Course Title and Number [Credit hours]	Session	Role
Environmental Health Microbiology (PUBH 7125) [3]	Spring 2014	Instructor
Environmental Health 1(PUBH 7120/8120) [3] (In-class and online)	Spring 2014, 2015, 2016, 2017, 2018	Co-Instructor
Environmental Toxicology (PUBH 7124/8124) [3]	Fall 2014, 2015, 2016, 2017, 2018	Instructor
Environmental Sampling and Analysis (PUBH 7129) [3]	Spring 2015, 2016	Co-Instructor
Master's Project Seminar (PUBH 7992) [3] (In-class and online)	Spring 2017	Co-Instructor

### *Courses Taught at Alabama A&M University*

Course Title and Number [Credit hours]	Session	Role
Food Microbiology - FAS 401 [4]	Fall 2009, 2010, 2011	Instructor
Food Microbiology - FAS 503 [4]	Fall 2009, 2010, 2011	Instructor
Food Microbiological Tech – FAS 654 [3]	Fall 2009, 2010, 2011	Instructor
Advanced Food Microbiology – FAS 701 [3]	Spring 2010, 2011	Instructor
Regulation of Food Safety and Quality – FAS 450 [3]	Spring 2011	Instructor
Regulation of Food Safety and Quality – FAS 550 [3]	Spring 2011	Instructor
Food Engineering – FAS 461L [4]	Fall 2010	Co-Instructor
Food Engineering – FAS 561 [4]	Fall 2010	Co-Instructor
Food Analysis – FAS 408 [4]	Spring 2010, 2011	Co-Instructor
Food Analysis – FAS 508 [4]	Spring 2010, 2011	Co-Instructor

### **Other Teaching Related Activities**

#### Guest lectures:

#### *At University of Memphis*

- One lecture in Biostatistics in Bioinformatics (PUBH 7153/8153) – Spring 2016
- One lecture in Environmental Policy and Decision Making (PUBH 7206) Course – Spring 2016
- One lecture in Managerial Epidemiology (HADM 7206) – Fall 2013, 2014, 2015, 2016, 2017
- One lecture in Environmental Health 1 (PUBH 7120/8120) – Spring 2013

#### *At Alabama A&M University*

- One lecture in Introduction to Food Science (FAS 102) Course – Fall 2009-10
- One lecture in Product Development (FAS 640) Course – Spring 2010-11
- Guest (visiting) Lecturer, Purdue University, Course title: Functional Foods (FS-591D), Spring 2008.
- Lecturer (part-time) of Microbiology and Biotechnology, Surendranath College of Calcutta University, Calcutta, India, 2000-2001

## **Workshops Offered**

- 2017 Pathogen Control in Low-moisture Food and *Salmonella* Biology (1/2 Day), Technical Directions Sanitation Boot Camp, Decatur, AL
- 2015 *Salmonella* Biology & Control in Low-moisture Food (1/2 Day), Technical Directions Sanitation Boot Camp, Decatur, AL
- 2014 Food Safety Basics for Environmentalists (1/2 Day), SPH Summer Institute
- 2014 *Salmonella* Biology & Control (1/2 Day), Technical Directions Sanitation Boot Camp, Huntsville, AL
- 2012 *Salmonella* Biology & Control in Low Moisture Food (1/2 Day), Technical Directions Sanitation Boot Camp, Huntsville, AL
- 2011 Microbial Techniques for Food Safety and Quality (1 Wk), AAMU
- 2010 Using Scientific Softwares for Food and Animal Science (2h), AAMU

## **MENTORING AND ADVISING**

### **Graduate Student Advisory Committees Chairs and Members**

#### ***Chair of Doctoral Committee***

1. Mukherjee, N. (PhD candidate, Epidemiology), Topic: Source Attribution, Antibiotic Resistance and Virulence Properties of *Salmonella* Serotypes Isolated from Clinically Diagnosed Human Salmonellosis Cases from Tennessee, Current position: Analyst, Qsource, Memphis, TN
2. Higgins, D. (PhD student, Epidemiology), Topic: Molecular Epidemiology of Human Gut Resistome and Diversity of Antibiotic Resistance Genes.

#### ***Member of Doctoral Committees***

3. Kaushal, A. (PhD, Epidemiology, 2017), Topic: Epigenetic Marker Identification and Assessment of Methods on Cell Type Compositions at the Epigenome-scale
4. Kaur, H. (PhD, Plant Pathology, 2012), Topic: Extraction and Validation of Antimicrobial Properties of Shiitake Mushroom (*Lentinula edodes*)
5. Poreddy, VB. (PhD, Food Science, 2011), Topic: Effect of Fermentation Conditions on Phytochemical Composition and quality attributes of Wine from Cranberries, Current position: Food Technologist, EFCO Products, Inc., Poughkeepsie, NY
6. Patterson, J. (PhD, Food Science, 2011), Topic: Distribution, Bioaccumulation, and Toxicity of N-nitrosamines in Red Swamp Crayfish, Current position: Post-doctoral researcher, Alabama A&M University, AL
7. Janen, A. (PhD, Food Science, 2009), Topic: Enhancing the Efficiency of Encapsulated Butylated Hydroxyanisole (BHA) Activity in Ground Turkey Meat, Current position: Scientist, Encapsula NanoSciences LLC, Nashville, TN

#### ***Chair of Master's Thesis Committees***

8. Higgins, D. (MPH, Environmental Health, 2016), Topic: Microbiological Safety of Retail Foods Available in Low and High Socioeconomic Neighborhoods in Memphis Metropolitan Area, Current position: Doctoral Student, Epidemiology, University of Memphis, Memphis, TN
9. Najafi, R. (MS, Food Science, 2012), Topic: Development of a Rapid and Sensitive Detection Method for *Escherichia coli* O157:H7 from Apple Juice Comprising Immunomagnetic Nanoparticle Mediated Separation in Tandem with Surface Enhanced Raman Scattering (SERS), Current position: Scientist, Qualitest Pharmaceuticals, Huntsville, AL

10. Johnson, A. (MS, Food Science, 2012), Topic: Cell based biosensor for Toxicity Evaluation, Current position: Microbiologist, Endo Pharmaceuticals, Madison, AL
11. Kennedy, N. (MS, Food Science, 2012), Topic: Virulence Gene Expression Profile of *Escherichia coli* O157:H7 Exposed to Lettuce Leaf Lysates During Refrigerated Storage, Current position: Scientist, Eurofins, Battle Creek, MI
12. Montgomery, NL. (MS, Food Science, 2011), Topic: The Use of Pulsed-Ultra Violet Irradiation to Improve Microbial Safety of Romaine Lettuce, Current position: R&D Specialist, Nestlé- Hygiene and Food Safety, New York City, NY

***Member of Master's Thesis Committees***

13. Chauhan, B. (MPH, Environmental Health, 2016), Topic: Mold in Residences and the Associated Respiratory Disease/Symptoms Among Occupants
14. Carlson, N. (MPH, Environmental Health, 2015), Topic: Examining the Role of In-home Environmental Exposure in High-Risk Childhood Asthma Severity
15. Quraishi, B. (MPH, Epidemiology, 2015), Topic: Identifying CpG Sites Associated with Eczema via Random Forest Screening of Epigenome-wide DNA Methylation
16. Coleman, S. (MS, Food Science, 2011), Topic: Impact of Selected Antioxidants on the Safety and Shelf-Life of Beef
17. Mounts, L. (MS, Food Science, 2011), Topic: Effect of Soymeal, Flaxmeal, and a Probiotic on obesity Related Symptoms in Zucker Rats
18. Chintapandu, S. (MS, Food Science, 2010), Topic: Effect of Processing on Phytochemical and Micronutrient Composition in Selected Fruits
19. Appiah, S. (MS, Food Science, 2010), Topic: Effect of processing on bioavailability and chemopreventive potential of phytochemicals from grapes and beets using fisher 344 male rats

***Master's Project Advising***

20. Ravi, D. (MPH, Environmental Health, 2015), Topic: Non- typhoidal salmonellosis caused by *S. Newport*, *S. Javiana* and *S. Mississippi* are associated with non-foodborne exposures in Tennessee: 2011- 2014
21. Brazelton, C. (MS, Food Science, 2011), Topic: Development of a non-dairy, legume based functional beverage using probiotics

***Master's Exam Committees***

22. Clausel, C. (MPH, Epidemiology, 2017), Topic: Preparation of an Outbreak Protocol for Rift Valley Fever for the Shelby County Health Department
23. Praveen, R. (MPH, Epidemiology, 2017), Topic: Prevalence of Non-Infectious Comorbidities in AIDS Patients Over 45 Years of Age in the Shelby County Area for the Years 2011-2013
24. Foster, K. (MPH, Heath Systems Management & Policy, 2017), Topic: Infant Mortality Reduction in Shelby County, TN
25. Saha, A. (MPH, Heath Systems Management & Policy, 2017), Topic: Operationalizing Interdisciplinary Collaboration in Healthcare for Population Health Improvement Through Education
26. Abbas, A. (MPH, , Epidemiology, 2017), Topic: Effect of Maternal Demographics on Preterm Birth, Infant Birth Weight, Breastfeeding Initiation, and Immunization
27. McLauren, C. (MS, Biology, 2016)

## ***Undergraduate and High-School Student Advising***

1. Weiss, S. (High School, 2017)
2. Roy, E. (High School, 2015-2016)
3. Bomb, K. (High School, 2016)
4. Singh, N. (High School, 2016)
5. Sinha, V. (High School, 2015)
6. Kedia, S. (High School, 2014)
7. Dong, M. (High School, 2014)
8. Vohra, V. (High School, 2014)
9. Woods, B. (BS, Food Science, 2011)
10. Davis, K. (BS, Food Science, 2011)
11. Jeffries, A. (BS, Food Science, 2011)
12. Major, E. (BS, Food Science, 2011)
13. Strozier, J. (BS, Food Science, 2012)
14. Balay, A. (BS, Food Science, 2012)
15. Hines, C. (BS, Food Science, 2012)
16. Foster, C. (BS, Food Science, 2012)
17. Hemingway, S. (BS, Food Science, 2012)
18. Howard, S. (BS, Food Science, 2012)
19. Ross, J. (BS, Food Science, 2012)

## **PROFESSIONAL SERVICE**

### **Service to Division/School/University**

#### ***University-level Committees:***

- |                |  |
|----------------|--|
| 2014- present  | Member, University Biosafety Standing Committee              |
| 2016- present  | Member, UofM Integrated Microscopy Center Steering Committee |
| 2016 - present | Member, Transition Task Force Working Group - Research       |

#### ***School-level Committees:***

- |                |  |
|----------------|--|
| 2013- 2017     | Member, MPH Admissions Committee                             |
| 2014 – present | Member, Committee on Faculty Affairs and Development (COFAD) |
| 2013- present  | Chair, EBE Laboratory and Safety Committee                   |

#### ***Divisional Committees:***

- |            |   |
|------------|---|
| 2015- 2017 | Member, Epidemiology PhD Admissions Committee   |
| 2013- 2015 | Chair, Epidemiology PhD Admissions Committee    |
| 2014       | Member, EH Assistant Professor Search Committee |

### **At Alabama A&M University**

#### ***Departmental Committees:***

- Coordinator, Curriculum Assessment for Food Science
- Recruitment and Retention
- Research Grant (Collaborations)
- Curriculum and Teaching

- Web/Communication
- Graduate Admissions

## Service to Profession

### Grant Review

- USDA-AFRI (National panel member, food safety topic) (2012, 2013, 2016, 2017)
- USDA-AFRI (National panel member, Undergraduate Research and Extension Experiential Learning Fellowships Program) (2015)
- European Commission-Research and Innovation Actions (Horizon 2020, RIA) in Novel Ideas for Radically New Technologies (scientific expert evaluator) (2015, 2016, 2017)
- USDA-SBIR (2012, 2014) – ad-hoc
- Alternatives Research Grant Program administered by the Alternatives Research and Development Foundation (ARDF, PA) (2009-2012) – ad-hoc

### Editorial Service

**Lead Guest Editor**, Special Issue (2016-2017): “*Novel Microbial Diagnostic Methods for Clinical, Environmental, and Food Samples*”, **BioMed Research International** (IF = 2.134).

### Journal Article Reviews (*ad-hoc*)

Analytica Chimica Acta	Journal of Science of Food and Agriculture
Analytical Methods	Journal of Virology Methods
Aquatic Microbial Ecology	Laboratory Investigation
BioMed Research International	Letters in Applied Microbiology
Biomedical and Environmental Sciences	LWT-Food Science and Technology
BMC Microbiology	Marine Drugs
Environmental Research	Microbial Pathogenesis
International Journal of Environmental Research and Public Health	Nanotoxicology
International Journal of Food Microbiology	PLOS One
Journal of AOAC INTERNATIONAL	Sensors
Journal of Applied Microbiology	Toxicological Sciences
Journal of Applied Poultry Research	Toxins
Journal of Global Antimicrobial Resistance	Trends in Analytical Chemistry
Journal of Microbiological Methods	Veterinary Microbiology

### Other service activities

#### National-level

2012- present	Member, FDA Advisory Panel of Auburn University Food Systems Institute
2012- present	Member, IAFP Foodborne Illness Professional Development Group
2012- present	Member, IAFP Applied Laboratory Methods Professional Development Group
2012- present	Member, IAFP Preharvest Food Safety Professional Development Group
2014- present	Member, IAFP Advanced Molecular Analytics Professional Development Group
2011-present	IFT Food Biotechnology Division

2010-present	Member, IFT Food Microbiology Division
2011-2012	Secretary, IFT-Southeastern Section
2011-2013	Poster Competition Judge (IFT Food Biotech Division)
2010-2012	Member, IFT Food Safety and Defense sub-panel
2009-2012	Webmaster, IFT-Southeastern Section

### ***State and Local-level***

2015- present	Tennessee Food Safety Task Force, invited member
2014- present	Healthy Housing Workgroup Member, Le Bonheur Children’s Hospital on their “Changing High-risk Asthma in Memphis through Partnership” (CHAMP) Program
2012	Served as a subject matter expert on Organic Foods and Food Safety on WREG News Channel 3 TV ( <a href="http://wreg.com/2012/10/08/cracking-the-code/">http://wreg.com/2012/10/08/cracking-the-code/</a> )
2013	Worked with Memphis based Action 5 News Channel to create a simple public health e-flyer titled “Guide to Fighting Germs at the Gym” ( <a href="http://www.wmactionnews5.com/story/24039899/andys-consumer-pay-off-guide-to-fighting-germs-at-the-gym">http://www.wmactionnews5.com/story/24039899/andys-consumer-pay-off-guide-to-fighting-germs-at-the-gym</a> ).
2013	News Story on Action 5 News Channel on pathogenic microbes distribution in Memphis –area health centers ( <a href="http://www.wmactionnews5.com/story/24036649/the-investigators-gyms-undercover">http://www.wmactionnews5.com/story/24036649/the-investigators-gyms-undercover</a> ).

### **IN NEWS**

- “Live cells adapted for food-pathogen testing” in [foodproductiondaily.com](http://foodproductiondaily.com) and [foodqualitynews.com](http://foodqualitynews.com)  
[www.foodproductiondaily.com/Quality-Safety/Live-cells-adapted-for-food-pathogen-testing](http://www.foodproductiondaily.com/Quality-Safety/Live-cells-adapted-for-food-pathogen-testing)  
[www.foodqualitynews.com/Innovation/Live-cells-adapted-for-food-pathogen-testing](http://www.foodqualitynews.com/Innovation/Live-cells-adapted-for-food-pathogen-testing)
- Purdue University Home Page
- New super technology to detect food-borne pathogens, toxins [www.news-medical.net/?id=35819](http://www.news-medical.net/?id=35819)
- “Purdue Researchers develop cell-based biosensors for rapid onsite toxin testing” Cell-based Assay News. March 21, 2008
- “Live cells adapted for food pathogen testing” Food Production.Com | Europe. March 3, 2008
- “Now, a new method to detect toxins in food” Mumbai Mirror, India, March 2, 2008
- “Technology uses live cells to detect foodborne pathogens, toxins” Inside Purdue, March 18, 2008
- “Mammalian-cell biosensor accelerates pathogen detection” Lab technologist.com, March 11, 2008

### **MEMBERSHIP IN ACADEMIC & PROFESSIONAL SOCIETIES**

- International Association for Food Protection
- Institute of Food Technologists
- American Public Health Association
- American Society for Microbiology
- Sigma-Xi
- Phi Tau Sigma