

# *Salmonella* in Poultry: Research and Science Roundtable

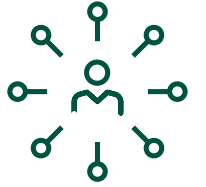
February 15, 2022



Speaker Biographies and Bibliographies

# Craig Hedberg, PhD

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Craig Hedberg is an Epidemiologist and Professor in the Division of Environmental Health Sciences at the University of Minnesota, School of Public Health (SPH). He serves as the Co-Director for the MN Integrated Food Safety Center of Excellence.

Dr. Hedberg promotes public health surveillance as a prerequisite for effective food control. Prior to joining the SPH faculty in 1999, Dr. Hedberg had 15 years of applied experience conducting surveillance for foodborne, vectorborne, and zoonotic diseases at the Minnesota Department of Health where he developed several innovative approaches to improving foodborne illness surveillance and outbreak investigation.

His most important contributions have been to advance methods for collaboration between public health and regulatory agencies, academic researchers and industry to improve foodborne illness surveillance and outbreak investigations. Improving the efficiency and effectiveness of investigations enhances response activities. Better investigations produce more effective prevention measures.

# Craig Hedberg, PhD

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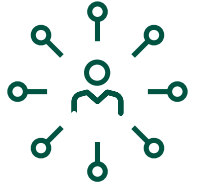
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# Nikki Shariat, PhD

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Dr. Nikki Shariat is an Assistant Professor at the Poultry Diagnostic and Research Center in the College of Veterinary Medicine at the University of Georgia. Her research program is focused on understanding *Salmonella* serovar diversity and ecology by employing novel amplicon-based detection technologies. Her research team applies these technologies to assess serovar dynamics in food animal production to develop improved *Salmonella* controls, with an emphasis on poultry production. Dr. Shariat has published multiple scientific papers addressing methodologies for molecular typing of *Salmonella*.

# Nikki Shariat, PhD

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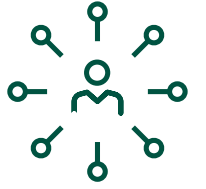


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# Richard Jeffrey Buhr, PhD

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Dr. Buhr earned a BS degree in Animal Science from California State Polytechnic University-Pomona, and a MS in Avian Sciences and PhD in Anatomy from the University of California-Davis. He joined the faculty of the Department of Poultry Science in 1987 as an Assistant Professor, and the Agriculture Research Service of the U.S. Department of Agriculture in 1997 as a Research Physiologist. He has served as Project Leader in the Poultry Microbiological Safety and Processing Research Unit at the U.S. National Poultry Research Center in Athens, Georgia; and also holds an Adjunct Professor/Graduate Faculty appointment in the College of Agriculture at the University of Georgia.

His research program has spanned avian embryonic development/incubation utilizing Coturnix quail, chicken, turkey, and ostrich; production and management for broilers, table egg layers, broiler breeders, and turkeys; poultry pilot plant slaughter/euthanasia from featherless broilers to on-farm slaughter, with an emphasis on food safety regarding *Salmonella* and *Campylobacter* detection, recovery, and decontamination interventions from the time that the egg is laid through carcass chilling.

He has co-authored 184 journal manuscripts, 306 abstracts, 27 popular articles, 8 wall display posters, 2 book chapters, obtained 2 patents, developed 2 germplasm releases, provided more than 80 invited national and international presentations, presented lectures/laboratories in 6 University poultry/anatomy courses, and continues to provide an annual lecture and lab on the Stunning Systems for Poultry Slaughter and Euthanasia for the University of Georgia Poultry Processing course. Buhr served on and chaired the USDA-ARS Russell Research Center IACUC and presently serves as a voting member on the USNPRC IACUC.

In recognition of his research contribution to the U.S. broiler industry, he was honored to receive the National Chicken Council's Broiler Research Award in 2009 and the Frank Perdue Live Poultry Food Safety Award in 2012 from the Poultry Science Association and was elected Fellow of the Poultry Science Association in 2021.

# Richard Jeffrey Buhr, PhD

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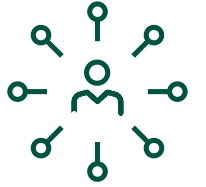
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# Michael J. Rothrock Jr., PhD

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Dr. Michael J. Rothrock Jr. is a lead scientist and research microbiologist with the USDA-ARS within the Egg Safety and Quality Research Unit in the US National Poultry Research Center in Athens, GA. He graduated from Franklin and Marshall College with a BA in Biology and Arizona State University with a Ph.D. in Microbiology.

Since 2005, Dr. Rothrock has held several positions within the USDA-ARS. Currently, Dr. Rothrock studies the microbial ecology of zoonotic bacterial pathogens (namely *Salmonella*, *Campylobacter*, and *Listeria*) within animal production systems, focusing mainly on conventional and alternative poultry production systems. He takes a systems-based, farm-to-fork approach to understand the ecological drivers of the survival and prevalence of *Salmonella* and other pathogens by combining traditional and molecular microbiological approaches with a variety of bioinformatic and modeling approaches.



# Michael J. Rothrock Jr., PhD

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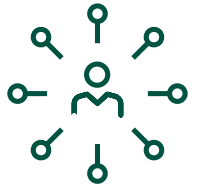
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# Steven C. Ricke, PhD

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Dr. Steven C. Ricke received his B.S. and M.S. from the Univ. of Illinois, Champaign-Urbana, IL. and Ph.D. from the Univ. of Wisconsin, Madison, WI. Dr. Ricke was a USDA-ARS postdoctorate in the Microbiology Department at North Carolina State Univ. then joined Texas A&M Univ. as a professor in the Poultry Science Dept. In 2005, he became the first holder of the new Donald “Buddy” Wray Endowed Chair in Food Safety and Director of the Center for Food Safety at the University of Arkansas (UA) and was a faculty member of the Dept. of Food Science and Cellular and Molecular Graduate program until October 2020, when he became Director of the Meat Science and Animal Biologics Discovery Program in the Animal and Dairy Sciences Dept. at the University of Wisconsin-Madison.

He received the Poultry Sci. Assoc. (PSA) Research Award in 1999, American Egg Board award in 2006, PSA Evonik Award for Achievement in Poultry Science in 2019 and Broiler Council Award in 2020. He was honored as a Texas Agricultural Experiment Station Faculty Fellow in 2002 and UA John White Outstanding Research Award in 2012. He served as co-founder and former President of the Arkansas Association of Food Protection (AAFP). He was named an AAFP Fellow in 2015, a PSA Fellow in 2017, an International for Food Protection Fellow in 2019 and a University of Wisconsin – CALS Distinguished Alumni in 2019. He served as an American Society for Microbiology Distinguished Lecturer from 2015 to 2017.

Dr. Ricke’s foodborne research projects have emphasized studies on the growth, survival and pathogenesis of pathogens in the poultry gastrointestinal tract (GIT) and their interactions with the GIT microbiota. He is also exploring using the microbiome to characterize microbial ecology of meat processing.

# Steven C. Ricke, PhD

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# Steven C. Ricke, PhD

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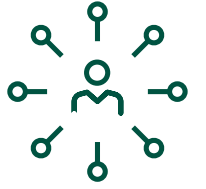
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# Marcos X. Sanchez-Plata, PhD, MBA

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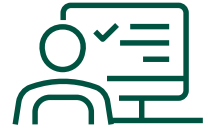


Dr. Marcos X. Sanchez-Plata is an Associate Professor of Global Food Security at Texas Tech University and works at the International Center for Food Industry Excellence (ICFIE). He specializes in food safety and security with a focus in meat and poultry processing and other food commodities. His research focuses on in-plant validation of antimicrobial interventions and their effects on pathogen control, biofilm development, quality and product shelf-life in foods, the evaluation of the quality and safety implications of new processing technologies and antimicrobial interventions in poultry, and the assessment of the effect of selective pressures on the selection of particular pathogen strains, and persistence in food systems.

Dr. Sanchez-Plata has a PhD in Food Science and Technology, an MBA in Agribusiness and a Masters of Science from the University of Nebraska-Lincoln, and a Bachelors in Food Biochemistry from the Central University of Ecuador.

# Marcos Sanchez-Plata, PhD, MBA

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# Marcos Sanchez-Plata, PhD, MBA

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