



For Immediate Release
U.S. Poultry & Egg Association

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USPOULTRY Approves New Board Research Initiative Grant Focused on Evaluating Vaccination Against *Salmonella* Reading in Turkeys

TUCKER, Ga. – April 26, 2021 – USPOULTRY approved approximately \$60,000 in funding for a new research grant to evaluate strategies to reduce *Salmonella* Reading colonization in turkeys through the Board Research Initiative program. The topic and request for proposal were selected by the USPOULTRY board of directors. The Foundation Research Advisory Committee evaluated several research proposals and then recommended which proposal to fund to the board.

The research grant is as follows, and the research was made possible in part by donations to the USPOULTRY Foundation. The donations came from a wide range of poultry and egg companies, individuals and families to support the Foundation's mission of funding industry research and recruiting students into poultry careers.

Vaccination Against *Salmonella enterica* Serotype Reading: Evaluation of the Cross-Protective *Salmonella* BBS 866 Vaccine and the AviPro® Megan® Egg Vaccine at Reducing Outbreak-Associated *S. Reading* Colonization, Dissemination and Persistence in Turkeys

USDA ARS National Animal Disease Center (research grant made possible in part by an endowing Foundation gift from the Cooper Family Foundation)

S. Reading has been isolated from production turkeys in the U.S. for many years, but only in the past few years has *S. Reading* been associated with human foodborne illness from turkey products. The objective of this project is to evaluate the cross-protective BBS 866 *Salmonella* vaccine in reducing colonization, dissemination and persistence of recently emerged *S. Reading*. Further, the research will assess reduction of *S. Reading* in turkeys vaccinated with AviPro® Megan® Egg, a vaccine recommended for the prevention of *S. Typhimurium* colonization of the liver and spleen in turkeys.

"Mitigation strategies against *Salmonella* are challenging because many of the >2,600 *Salmonella* serotypes often establish an undetected, asymptomatic, commensal-state in food animals, including turkeys. Vaccination against one serotype may not provide protection against other serotypes; thus, our research team created a live, attenuated vaccine that stimulates cross-protective immunity against diverse *Salmonella* serotypes in various food animal species. We will evaluate the ARS-developed vaccine and a commercially available vaccine in our turkey challenge model for reduction of the *S. Reading* outbreak isolate. Our goal is to provide the poultry industry with reliable data for informed decision-making on targeted control strategies against the human foodborne pathogen *Salmonella*, including *S. Reading* in turkeys," said Principal Investigator Dr. Shawn Bearson. Dr. Bearson is a microbiologist for the United States Department of Agriculture, Agricultural Research Services, National Animal Disease Center, Food Safety and Enteric Pathogens Research Unit in Ames, Iowa.

USPOULTRY Director of Research Dr. Denise Heard commented, “In addition to assessing the protection provided by the *Salmonella* vaccines against *S. Reading*, this study will also characterize the colonization potential and persistence of turkey-associated *S. Reading*, thereby providing valuable information on the virulence of the *Salmonella* outbreak-associated serovar that has alarmed turkey producers and disrupted turkey production.”

“A greater understanding of *Salmonella Reading* will assist the turkey industry in mitigating the serotype and could potentially be helpful in reducing future evolved *Salmonella* serotypes,” stated USPOULTRY President John Starkey.

The USPOULTRY Board Research Initiative was created by the boards of USPOULTRY and the USPOULTRY Foundation to address current issues facing the poultry industry. The USPOULTRY Board Research Initiative operates alongside the USPOULTRY comprehensive research program and augments the great success of the existing program by focusing additional resources toward defined areas of research.

USPOULTRY and its Foundation operate an extensive research program incorporating all phases of poultry and egg production and processing. Since the inception of the research program, USPOULTRY has reinvested more than \$33 million dollars into the industry in the form of research grants. More than 50 universities and federal and state facilities have received grants over the years.

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The USPOULTRY Foundation’s mission is to support the recruitment and training of the brightest students, seek and fund scientific research, foster student scientists and promote careers in the poultry and egg industry.