2023-2024 Food Safety Request for Proposals

The Foundation for Meat and Poultry Research and Education (Foundation) is a non-profit research, education and information foundation established to study ways the meat and poultry industry can produce better, safer products and operate more efficiently. The Foundation invites full proposals in food safety. The research priorities were developed by the Foundation’s Research Advisory Committee (Committee) and represent immediate research needs for Foundation funding. The Committee is comprised of leaders in industry, and government who volunteer their time to serve in this critical capacity.

If you have any questions on the proposal submission process or form, please reach out to Gheudé Hare ghare@meatinstitute.org. If you have any questions on the research priorities, please contact KatieRose McCullough, Ph.D., MPH at kmccullough@meatinstitute.org. Please submit your proposals online by 5 p.m. ET on Tuesday, September 19.

Pre-Harvest Food Safety

PRE_FS1 - Develop greater understanding of the ecology and epidemiology of *Salmonella*, in cattle, hogs and poultry and determine the mechanism and points in production period for internal colonization. Research may address all species or just one.

PRE_FS2 – Explore controls for internalized pathogen contamination in cattle and hogs. Research may include:
- Develop live animal intervention strategies to prevent or reduce *Salmonella* colonization.
- Investigate whether vaccination has an impact on, or correlation to, internalization.

Post-Harvest Food Safety

POST_FS1 - Evaluate pre-harvest *Salmonella* indicators for their effectiveness to identify problematic finished product (parts or grind) in chicken, turkey, pork and beef. Research may address one or multiple species.

POST_FS2 - Evaluate critical contamination points for chicken, turkey, pork and beef products, from arriving at a slaughter establishment to shipping, utilizing quantitative data, and identify key locations for targeted interventions. Research may address one or multiple species.

POST_FS3 - Develop methods for cleaning deep skin *Salmonella* contamination in poultry carcasses or parts.

POST_FS4 - Identify and validate antimicrobial interventions to reduce pathogen contamination of components intended for use in ground products. Interventions should be approved for use in the U.S. and ideally the major export markets for the specific variety meats. Research should investigate the antimicrobial for any negative effects on quality. Research may include:
- Interventions targeting *Salmonella, E. coli* O157:H7 and non- O157:H7 STECs in raw ground beef components (including offal)
- Interventions targeting *Salmonella* raw pork components intended for use in ground products.
- Interventions targeting *Salmonella* and *Campylobacter* in online poultry deboning and grinding and offline reprocessing.
POST_FS5 - Develop a mathematical model to evaluate the safety of uncured products if cook dwell time is more than 6 hours as affected by interaction of meat pH (5.8-6.8), salt (0.5-2.0%) and moisture (68-76%) or water activity. Research should evaluate growth in meat/poultry with low loads of background microbial loads and no phosphate in formulation. The critical operating parameters chosen should be well supported.

POST_FS6 - Explore innovative pathogen control measures and parameters. Controls evaluated should address pathogens such as *L. monocytogenes*, *S. aureus*, and *C. perfringens* growth and survival. Research should focus on potential controls outside of those well documented in existing safe harbors (such as Appendices A and B) and scientific literature and may or may not include a focus on clean label products.

POST_FS7 - In collaboration with industry, develop best practices for the dry and semi-dry fermented products as well as dry cured items. Best practices should consider current regulatory requirements. The outcome of this project should be an updated version of the [Interim Good Manufacturing Practices for Fermented Dry and Semi-Dry Sausage Products](#).

POST_FS8 – Explore how *Salmonella* populations change (level and type) over the course of processing and storage. Research may address any species and products including whole muscles, whole birds, trim or parts.