



The *Salmonella* Grand Challenge

STAIRS: *Salmonella* Team Advancing Integrated Research Solutions

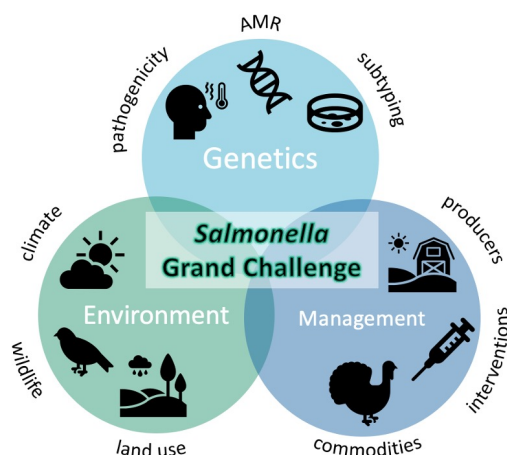
Problem. In response to growing regulatory pressure and stakeholder needs, ARS launched a new endeavor, the *Salmonella* Grand Challenge in November 2022. This is a 5-year project based on the need to approach the *Salmonella* problem in a new way by developing transdisciplinary, application-focused, pre-harvest solutions

Our Group. The *Salmonella* Grand Challenge includes 24 core members across the Agricultural Research Service and Economic Research Service, representing 8 locations; an Industry Advisory Board representing the four major meat and poultry commodities and four companies; and additional collaborators across universities, industries, and associations

Project Objectives:

1. Establish 'Gold Standard' methods, approaches, and integrated protocols
2. Identify drivers, reservoirs, and sentinels of highly pathogenic *Salmonella* in pre-harvest
3. Design novel, synergistic and/or multi-hurdle approaches to mitigate highly pathogenic *Salmonella*
4. Harness machine learning and large standardized datasets to build decision support tools for stakeholders
5. Implement communication and outreach activities

Potential Solutions: Provide stakeholders actionable data, standardized methods, and implementable intervention tools to reduce *Salmonella* associated with food animals and meat and poultry products, thus helping them implement affordable, effective, data-driven strategies to address their *Salmonella* food safety goals.



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