# H5N1 Risk to Swine Research Program
# Request For Research Proposals
**January 29, 2026**

The Swine Health Information Center partnered with the Foundation for Food & Agriculture Research and the Pork Checkoff in 2024 to fund a $4M research program to enhance prevention, preparedness, mitigation, and response capabilities for H5N1 influenza in the US swine herd.

Launched in 2015 with Pork Checkoff funding, the mission of the Swine Health Information Center (SHIC) is to protect and enhance the health of the US swine herd by minimizing the impact of emerging disease threats through preparedness, coordinated communications, global disease monitoring, analysis of swine health data, and targeted research investments. The Foundation for Food & Agriculture Research (FFAR) is a non-profit organization established in the 2014 Farm Bill to build public-private partnerships that fund bold research addressing food and agriculture challenges.

As part of SHIC's strategic mission to respond to emerging disease threats, SHIC monitors disease outbreaks nationally and internationally for their potential risks to the US swine herd. H5N1 influenza was identified as an emerging disease threat in 2024 as a priority for US pork industry prevention and preparedness due to the growing number of diverse mammalian species susceptible to infection and the unprecedented H5N1 outbreak impacting dairy herds across the US. First discovered in dairy cattle in March 2024, the spillover of H5N1 into a novel livestock species resulting in a novel clinical presentation warrants the need for investigations into risk and mitigation of a potential incursion into US commercial swine herds.

Understanding the potential impacts of H5N1 on pork production directly addresses SHIC's mission to protect the health of the US swine herd and mitigate the risk of emerging diseases. Research priorities for H5N1 are designed to further strengthen US swine industry prevention and preparedness as well as inform response efforts should H5N1 be introduced into commercial swine. Critical research investments are necessary to prevent H5N1 incursion, ensure rapid and accurate detection of H5N1, inform stakeholder response, mitigate production losses on farm, identify effective control measures, and develop clear messaging to consumers on pork safety.

Announced in July 2025, the first round of proposal solicitation, selection, and funding is complete. SHIC/FFAR/NPB are now inviting a second round of proposal submissions from qualified researchers for funding consideration to address H5N1 Risk to Swine research priorities not yet adequately addressed. Described in the detailed Request for Research Proposals (RFP) below, topic areas include 1) surveillance, 2) introduction risks, 3) caretakers, 4) biosecurity, 5) pork safety, 6) production impact, and 7) business continuity. Projects proposing to expand previously funded work from the first RFP that align with the research priorities of this solicitation will also be considered for funding.

**Proposals should clearly state which of the below SHIC/FFAR/NPB H5N1 Risk to Swine Research Priorities will be addressed through the project.** Collaborative projects that include

the relevant pork industry, allied industry, dairy or poultry industries, academic institutions, and/or public/private partnerships, as applicable, are highly encouraged. For multi-species projects, proposals should demonstrate adequate scientific and/or industry representation for each species included to ensure meaningful and effective collaboration. Projects that demonstrate the most urgent and timeliness of completion, provide the greatest value to pork producers, and show efficient use of funds will be prioritized for funding. Projects are requested to be completed within a 12- to 18-month period with sufficient justification required for extended project duration.

Total funding available for the SHIC/FFAR/NPB H5N1 Risk to Swine Research Priorities outlined below is $1.8M. **Individual awards are capped at $250,000, but proposals may exceed cap if sufficient justification is provided.** Matching funds are encouraged but not required; the $250K cap applies to only those funds requested from SHIC/FFAR/NPB. All projects should strive to have a high impact, show value to pork producers, and have pork industry-wide benefit.

**The deadline for proposal submission is 5:00 PM CT on March 24, 2026.** The proposal template and instructions for completion and submission can be found at www.swinehealth.org. For questions, please contact Dr. Megan Niederwerder at mniederwerder@swinehealth.org or (785)452-8270 or Dr. Lisa Becton at lbecton@swinehealth.org or (515)724-9491.

**SHIC/FFAR/NPB H5N1 Risk to Swine Research Priorities**

1. ***Diagnostic Surveillance.*** Determine the most sensitive and specific sample type for early and rapid detection of H5N1 incursion in commercial swine; validate the use of oral fluids for H5N1 influenza surveillance; evaluate udder wipes/nasal wipes and investigate other population and environmental samples such as lagoon effluent for estimating prevalence; investigate syndromic surveillance for case compatible VDL submissions; use statistical modeling to develop surveillance strategies to confirm virus elimination from herds; evaluate diagnostic assays for differentiation from swine endemic IAV.

2. ***Introduction and Transmission Risks.*** Assess risks to evaluate and prioritize hazards for potential incursion of H5N1 into swine herds, such as unpasteurized milk, dairy waste products such as whey, wildlife scavengers, feral swine, wild migratory birds, rodents/pests, proximity to poultry and dairy farms, mixed species farms co-housing swine, operational connections with poultry and dairy farms (shared personnel or housing, contract crews, equipment, supplies, feed or animal transport trailers), and contaminated surface water or feed; investigate H5N1 transmission potential through boar semen; define H5N1 stability in manure during removal and application; evaluate aerosol transmission risks in dust and particulate as well as impact of air filtration to prevent farm entry; determine potential for spread during production practices such as udder manipulation, animal handling practices, cross-fostering, and litter split-suckling.

3. ***Caretakers of Pigs***. Identify best practices for prevention of zoonotic transmission of H5N1 between animal caretakers and swine, including ease of access to enhance use of human seasonal influenza vaccines; identify most effective personal protective equipment for mucus membranes (face mask, face shield, eye protection glasses), hands, and personnel clothing with applicability to on-farm conditions based off hazards identified during risk assessment of practices within swine operations.

4. ***Biosecurity Practices.*** Develop best practices for reducing the risk of H5N1 introduction and transmission on swine farms, such as downtime protocols for personnel working with pigs that access poultry or dairy farms, mitigating risks of contaminated fomite entry due to operational connections with poultry or dairy farms, mixed species farms biosecurity practices, preventing infection in backyard and show pig populations, reducing wild bird access or using deterrents for wildlife, eliminating bird nests and roosts, water treatments or feed mitigants, storage and maintenance of feed and feed bins, innovative biosecurity practices around mortality management, cleaning/disinfection of pens, transport vehicles, and shared equipment; investigate the efficacy of compounds that could inactivate IAV through alteration of pH, remain effective in the presence of high environmental organic loads, and remain safe for use by caretakers in animal areas.

5. ***Safety of Pork.*** Investigate the potential for H5N1 in different pork products from cull sows and market hogs, including various cuts, processing techniques, food handling, and cooking recommendations for consumer messaging on safety of pork; evaluate the frequency of H5N1 in different pork products using infection routes modeling natural transmission such as seeder pigs; confirm inactivation of H5N1 in laboratory contaminated pork products cooked at standard recommended time and temperature.

6. ***Mitigating Production Impact.*** Identify strategies that reduce viral contamination and transmission to minimize production impacts of H5N1 in swine, such as supportive veterinary treatment of infected herds (whole herd versus targeted population), herd closure, methods for All-In/All-Out production sites, segregated early weaning, depopulation and repopulation; evaluate the epidemiology of reinfected animals with underlying immunity for transmission and clinical impact/severity within a swine herd.

7. ***Business Continuity.*** Determine the most effective methods for swine movements from exposed herds across the production chain while minimizing risk of H5N1 spread, such as diagnostic testing protocols for outgoing or incoming shipments, transport certification, farm quarantine, or pre-movement isolation; identify low and high-risk movements based on production phase, single or multi-source, proximity to other livestock operations, and access to at-risk populations; conduct economic analyses that inform decision-making and readiness planning for an H5N1 outbreak, such as cost-benefit assessments of business continuation strategies; determine what diagnostic testing or other information is needed for permitting and movement of pigs out of a control zone.