USDA APHIS Veterinary Services
Highly Pathogenic Avian Influenza (HPAI) Poultry Innovation Grand Challenge Award Selections

November 2025

Topic 1: Projects That Support Development of Novel Vaccines

ID	Recipient	Title
APP-92382	Kansas State University	Insects for antigen production and delivery: a novel oral vaccination platform for HPAI
APP-92465	University of Minnesota	Development of broadly protective vaccines against HPAI viruses
APP-92468	Duke University School of Medicine	Vaccine-based control strategies to mitigate HPAI outbreaks in layer chickens
APP-96335	Georgia Tech Applied Research Corp	Novel poultry vaccine platform: artificial intelligence design and high throughput antigen testing system for live bacteria vaccine development against HPAI (H5N1)
APP-96339	State University of New York	Novel feedable yeast vaccines for broad bird protection against HPAI in poultry
APP-96356	University of Washington	Targeting avian influenza with innovative phage-based vaccines
APP-96399	University of Minnesota	Development of a novel lactococcal phage and mucosal immunity-based H5N1 HPAI vaccine for poultry
APP-96403	University of Maryland, College Park	Development of non-replicating adenovirus vectored vaccines with pan-H5 cross-clade reactivity to protect chickens from HPAI
APP-96419	Kansas State University	Development of HPAI virus (H5N1) subunit vaccines and a DIVA diagnostic lateral flow device
APP-96478	Centivax, Inc.	Centi-Poult-H5: a broadly protective vaccine for HPAI in poultry
APP-96515	Colorado State University	Exploiting probiotic delivery of a novel oral subunit vaccine against HPAI in poultry
APP-96556	University of Missouri	Novel vaccine and strategy to control HPAI H5 viruses
APP-96565	Texas A&M Agrilife Research	Marek's disease virus vector vaccines for H5 HPAI control in chickens
APP-96593	Iowa State University of Science and Technology	Protection and immunity induced by avian influenza nanovaccine (AI-nanovax) in chickens
APP-96616	University of Georgia Research Foundation, Inc.	Mass vaccination-ready, reassortment-impaired live virus vaccines against HPAI

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APP-97478	Cyanvac LLC	PIV5-based influenza H5N1 vaccine for poultry immunization
APP-97565	Louisiana State University	Nanobody-directed, M-cell-targeted mucosal vaccine against HPAI H5N1 clade 2.3.4.4b in poultry

Topic 2: Projects That Support Development of Novel Therapeutics

ID	Recipient	Title
APP-92487	University of Georgia Research Foundation, Inc.	Novel immunoprophylaxis strategies to combat avian influenza
APP-92570	University of Minnesota	Beyond vaccines: harnessing trained immunity to strengthen poultry resilience against HPAI
APP-96411	Utah State University	Decoding the poultry-HPAI interactome: an integrative pipeline for targeted therapeutics against HPAI
APP-96431	Resonant Health Inc.	Preventing HPAI transmission on poultry farms using radiofrequency antivirals
APP-96442	University of Georgia Research Foundation, Inc.	Anti-HPAI effects of tannins in poultry
APP-96460	Ohio State University	Precision gene editing to confer avian influenza resistance in chickens by targeting viral entry pathways
APP-96583	Purdue University	Fogging the threat: a novel therapeutic approach to suppress HPAI transmission in poultry facilities
APP-96617	University of Georgia Research Foundation, Inc.	Harnessing the power of nutrition against avian influenza
APP-97282	University of North Carolina at Chapel Hill	Development of poultry specific HPAI antivirals for feed-based delivery
APP-97439	University of Pennsylvania	Evaluation of efficacy of bean powder in neutralization, prevention of infection and transmission of contemporary H5N1 HPAIV strains in chickens and turkeys
APP-97464	A-New Bio Inc.	Engineering multigenic resistance to avian influenza in chickens
APP-97487	University of Michigan	AI-driven discovery of resistance-resilient poultry antivirals targeting influenza cap endonuclease
APP-97500	Seek Labs, Inc.	Novel CRISPR based mediated therapeutics for HPAI in poultry
APP-97595	Purdue University	Aerosolized soluble Niclosamide for control of HPAI

Topic 3: Projects That Support Research for Improved Response Strategies

ID	Recipient	Title
APP-88108-EMAIL	United States Geological Survey	Building a HPAI environmental surveillance toolbox for early detection and rapid outbreak response
APP-92460	University of Nebraska	Comprehensive HPAI surveillance in diverse landscapes; development of holistic sample and testing methodologies for early detection
APP-92546	Washington University	AirAVIAN: Airborne Avian Influenza Identification And Notification system
APP-93388	Indiana University	Enhancing poultry farm biosecurity using ultraviolet-C light technology to prevent avian influenza virus contamination
APP-96350	Ande Corp	Rapid HMAC H5N1 diagnostic with ability to detect influenza A subtypes and strains, increased sensitivity, and resistance to assay destruction by mutation and reassortment to enable dramatically enhanced H5N1 detection in unvaccinated and vaccinated poultry
APP-96365	University of Minnesota	Turkeys are not big chickens: turkey-specific and physiologically relevant models to study avian influenza A infections and therapeutics
APP-96413	University of Michigan	Understanding the role of rapid pH dynamics in the natural and engineered inactivation of influenza aerosols in poultry production facilities
APP-96418	University of Minnesota	Reducing the risk of barn to barn spread of H5Nx influenza on infected poultry premises
APP-96467	St. Jude Children's Research Hospital Inc	Investigating novel mechanisms of local area spread of HPAIV in poultry
APP-96492	North Carolina State University	Uncovering the main modes of transmission of HPAI at the farm and barn levels under optimized ventilation
APP-96532	University of Pittsburgh	Innovative, field-deployable, and highly specific diagnostic platforms for HPAI detection in poultry, wild birds, and environmental reservoirs
APP-96560	University of Missouri	A dictionary of cellular communication networks in the chicken lung and their importance for achieving HPAI resistance
APP-96572	Colorado State University	Avian influenza in poultry on the Navajo Nation
APP-96576	American Type Culture Collection	Reference materials for HPAI in poultry that support the development of biosecurity strategies, novel therapeutics, and vaccines
APP-96581	Colorado State University	Identifying routes of transmission and assessing mitigation efforts against HPAI H5N1 clade 2.3.4.4b in poultry
APP-96621	University of California at Riverside	Unveiling HPAI transmission dynamics: developing a novel AI-driven proteomic sentinel

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APP-97299	University of Michigan	Establishing the role of peridomestic mammals in maintaining H5N1 among poultry and promoting biosecurity at the wildlife-poultry interface
APP-97328	Texas A&M Veterinary Medical Diagnostic Laboratory	Strategies to reduce costs and expand testing options for influenza real-time RT-PCR
APP-97349	Translational Genomics Research Institute	Leveraging wildlife networks to strengthen surveillance and early detection of HPAI in support of poultry sector preparedness
APP-97410	Montana State University	Bench to barn: leveraging poultry intestinal organoids to rapidly evaluate interventions that reduce HPAI transmission in domestic chickens
APP-97419	Kansas State University	Protecting U.S. agriculture from HPAI: field-ready acoustic solutions to keep infected wild birds away commercial poultry meat and egg farms
APP-97420	Indiana University	Integrated aquatic and terrestrial surveillance for HPAI in Indiana
APP-97440	Canon Virginia Inc.	Sapphire molecular diagnostic platform for rapid HPAI detection
APP-97451	Electradx Molecular LLC	SOAR, Surveillance and Onsite Avian Influenza Response
APP-97470	Columbia University in the City of New York	Evaluating far-UVC lighting for improved biosecurity on poultry farms
APP-97529	Minnesota Turkey Research and Promotion Council	Transitioning to sustainable HPAI control strategies in poultry populations
APP-97632	Radiolife	Novel Reagent-less Radio Frequency and AI-based Diagnostic Device for Rapid Detection of Highly Pathogenic Avian Influenza (HPAI) in Poultry