



**For Immediate Release**  
**USPOULTRY Foundation**

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## **USPOULTRY Foundation Approves New Board Research Initiative Grant Addressing Clostridial Dermatitis in Poultry**

TUCKER, Ga. – April 22, 2021 – The USPOULTRY Foundation approved approximately \$120,000 in funding for a new research grant addressing Clostridial dermatitis in poultry through the Board Research Initiative program. The topic and request for proposals were selected by the USPOULTRY Foundation board of directors. The Foundation Research Advisory Committee evaluated several research proposals and then recommended which project 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 were 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.

### **Development of a Probiotic-Based Recombinant Oral Vectored-Vaccine Against Clostridial Dermatitis in Turkeys**

North Carolina State University (research grant made possible in part by an endowing Foundation gift from Prestage Farms)

Clostridial dermatitis (CD), caused predominantly by *Clostridium septicum*, is an economically important emerging disease of turkeys characterized by necrotic dermatitis and sudden death. Control strategies, such as improved management, feeding probiotics and others, have been tried with variable success. This project will develop a vaccine that may be effective in immunizing turkeys against Clostridial dermatitis. In addition to inducing CD immunity in birds, this vaccine will possess probiotic properties to competitively exclude intestinal colonization by pathogenic Clostridia, thus enhancing overall gut health in poultry and yielding value-added means for poultry producers to grow poultry without relying on the use of on-farm antibiotics for CD control.

"The innovative nature of this study builds upon our current understanding of the important role played by probiotics in promoting gut health in poultry, when used as beneficial microbial supplements. Thus, the novel experimental approach will comprise of using certain well-characterized probiotic bacterial strains to clone and express *C. septicum* protective antigen(s) to develop an effective and viable vaccine against CD in turkeys," said Principal Investigator Dr. Ravi Kulkarni, in the Department of Population Health and Pathobiology, College of Veterinary Medicine at North Carolina State University.

USPOULTRY Director of Research Dr. Denise Heard commented, "The disease pathogenesis of CD is poorly understood, mainly because of its complexity and multifactorial characteristics. The development of an effective oral probiotic-based CD vaccine will be of value to both the turkey and broiler sectors."

"The USPOULTRY Foundation is pleased to support this project. Clostridial dermatitis is an important disease of both turkeys and broilers that often requires antibiotics to treat. With reduced use of

antibiotics in the industry, it is important that we find alternative methods to protect our flocks,” shared John Prestage, Prestage Farms, and USPOULTRY Foundation chairman.

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.

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