California State University, Fresno, Department of Biology presents

# Genomic analysis of the chicken host immune response to viral infection under abiotic stress


## Perot Saelao

Integrative Genetics and Genomics
University of California, Davis


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Newcastle disease virus (NDV) is devastating worldwide poultry pathogen that has a tremendous potential to impact international food securities during outbreaks. Investigations into the host genetics can be utilized to understand the mechanisms by which populations are able maintain resistance to pathogens such as NDV. Two highly inbred and genetically distinct chicken lines, Fayoumis and Leghorns, were exposed to the lentogenic strain of NDV while under the effects of heat stress in order to understand the genetic mechanisms of resistance during high ambient temperatures. Genomic profiling of immune tissues which NDV infects enabled for a global understanding of the host response to NDV infection. Overall investigation into the genetics of the host immune response to NDV during heat stress provides novel insights into global protein and expression profiles and provides potential genetic targets for future development of improved disease resistance.


If you need a disability-related accommodation or wheelchair access, please contact Lindasue Garner in the Department of Biology at 278-2001 or e-mail lgarner@csufresno.edu (at least one week prior to event)