

## **BLANCA LUPIANI, PH.D.**

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### **Title:**

Associate Professor, Department of Veterinary Pathobiology,  
College of Veterinary Medicine and Biological Sciences, Texas A&M University

### **Project Role:**

Principal Investigator, Avian influenza virus vaccines

**Project Responsibilities:** To develop alphavirus-based vaccines to control avian influenza infection in poultry

### **Relevant Expertise:**

Dr. Lupiani's research interests include understanding molecular mechanisms of avian influenza virus (AIV)-induced pathogenesis, as well as developing improved diagnostic tests and vaccines for the early detection and control of AIV infections. Specifically, Dr. Lupiani focuses on understanding the molecular mechanism of AIV pathogenesis with regard to the NS1 protein; developing diagnostic tests for rapid subtyping of AIV isolates, as well as tests with DIVA properties; and identifying the ecology and evolution of AIVs along the Texas Gulf Coast. Dr. Lupiani is a member of the Executive Committee and Co-Project Director of the diagnostic section of the Avian Influenza Coordinated Agriculture Program (AICAP, CSREES).

### **Education and Training:**

Universidad de Santiago de Compostela-Spain	B.S.	1988	Molecular Biology
Universidad de Santiago de Compostela-Spain	M.S.	1989	Microbiology
University of Maryland-College Park	Ph.D.	1994	Molecular Virology

### **Professional Appointments:**

1995-1997	Post-doctoral Research Associate, USDA/ARS, Beltsville Area Research Center-Beltsville, MD
1997-2000	Post-doctoral Research Associate, USDA/ARS, Avian Disease and Oncology Laboratory-East Lansing, MI
2000-2002	Research Associate, Animal Health and Diagnostic Laboratory, College of Veterinary Medicine, Michigan State University-East Lansing, MI
2002-2008	Assistant Professor, Department of Veterinary Pathobiology, Texas A&M University
2008-Present	Associate Professor, Department of Veterinary Pathobiology, Texas A&M University

### **Honors:**

1988-1989	Pre-doctoral Fellowship: Province of Galicia, Spain
1991-1994	Pre-doctoral Fellowship: Fulbright Commission/Ministry of Education, Spain

### **Relevant Publications:**

1. Brahmakshatriya, V., **B. Lupiani**, J.L. Brinlee, M. Cepeda, S.D. Pillai, and S.M. Reddy. Preliminary studies for inactivation of avian influenza virus (AIV) in poultry products using electron beam (E-beam) irradiation. *Avian Pathology*. Accepted for publication.

2. Ajithdoss, D., S.M. Reddy, P.F. Suchodolski, L.F. Lee, H.J. Kung, and **B. Lupiani**. 2009. In vitro characterization of the Meq proteins of Marek's disease virus vaccine strain CVI988. *Virus Research* (In press).
3. Suchodolski, P., Y. Izumiya, **B. Lupiani**, D. Ajithdoss, O. Gilad, L.F. Lee, H-J. Kung and S.M. Reddy 2009. Homodimerization of Marek's disease virus encoded Meq protein is not sufficient for transformation of lymphocytes in chicken. *Journal of Virology*. 83 (2): 859-69.
4. Watson, D.S., S.M. Reddy, V. Brahmakshatriya, and **B. Lupiani**. 2008. A multiplexed immunoassay for detection of antibodies against avian influenza virus. *Journal of Immunological Methods* Nov 8. [Epub ahead of print] doi:10.1016/j.jim.2008.10.007.
5. Ferro, P.J., J. El-Attrache, X. Fang, S.N. Rollo, A. Jester, T. Merendino, M.J. Peterson, and **B. Lupiani**. 2008. Avian influenza surveillance in hunter-harvested waterfowl from the Gulf Coast of Texas (November 2005-January 2006). *Journal of Wild Life Diseases* 44 (2): 434-439.
6. Lee, L.F., **B. Lupiani**, S. Silva, H.J. Kung, and S.M. Reddy. 2008. Recombinant Marek's disease virus (MDV) lacking the *Meq* oncogene confers protection against challenge with a very virulent plus strain of MDV. *Vaccine* 26 (15): 1887-1892.
7. **Lupiani, B.**, L.F. Lee, X. Cui, I. Gimeno, A. Anderson, R.W. Morgan, R.F. Silva, R.L. Witter, H.-J. Kung, and S.M. Reddy. 2004. Marek's disease virus-encoded Meq gene is involved in transformation of lymphocytes but is dispensable for replication. *Proceedings of the National Academy of Science, USA*. 101(32): 11815-11820.

#### **Research Support:**

**Title: Evaluation of E-beam pasteurization for inactivation of avian influenza virus in chicken, meat, and egg products.**

Contract No: 2005-3560515388                      PI: Sanjay Reddy                      2007-2009

Amount: \$38,700

Agency: CSREES/NRI/AICAP1

Summary: Evaluation of E-beam irradiation as a method for decontamination of poultry products in case of AIV outbreaks.

Role: Co-Investigator

**Title: Detection, identification, and characterization of AIVs isolated from wild waterfowl along the Texas Gulf Coast.**

Contract No: 2008-55204-18863 (Z521906)

Amount: \$209,500

Agency: CSREES/NRI/AICAP2                      PI: B. Lupiani                      2008-2011

Summary: Study of the ecology, prevalence, and molecular epidemiology of AIV in wild waterfowl in the wintering grounds of the Texas Gulf Coast; will compare wild bird viruses with those from commercial poultry.

**Title: Development of Luminex and ELISA based immunoassay for the subtyping of sera from infected chickens and turkeys.**

Contract No: 2008-55204-18863 (Z521906)                      PI: B. Lupiani                      2008-2011

Amount: \$292,000

Agency: CSREES/NRI/AICAP2

Summary: Development of monoplex and multiplex assays for early detection and early identification of H5 AIV infections in chickens and turkeys.