BIOGRAPHICAL SKETCH

NAME: **Michelle M. Corley**

POSITION TITLE: **Professor, and Director Animal Molecular Immunogenetics Research and Training Lab**

EDUCATION/TRAINING INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Auburn University, Auburn Alabama,	**Ph.D.**	**2001**	**Avian Molecular Immunology and Virology**
University of Illinois, Urbana, Illinois	**Post Graduate**	**1998**	**Animal Sciences: Molecular Gastro-intestinal Microbiology**
Tuskegee University, Tuskegee, Alabama	**MS**	**1993**	**Animal and Poultry Sciences: Ruminant Nutrition**
Tuskegee University, Tuskegee, Alabama	**BS**	**1990**	**Animal and Poultry Sciences**

Employment

Virginia State University

Professor, Animal Molecular Immunogenetics:2015-Present
Associate Professor, Animal Molecular Immunogenetics: 2009-2014

- Developed the Molecular Caprine Immunogenetics Research and Training Lab

Tuskegee University

Associate Professor and Director of the Animal Molecular Immunogenetics program and Director of the Poultry Biomedical Research and Training Facility: 2007-2008.

- Developed and Directed the Tuskegee University Satellite Center for Environmental Signal Transduction
- Directed the Animal Molecular Immunogenetics Research and Training Lab and the Poultry Biomedical Research and Training Facility
- Director of the "Tuskegee University Satellite Center for Environmental Signal Transduction" 2006-2008

Background and Research Interest:

- Over 20 years of experience in Animal Health and Disease with a focus area on the use of animals to model human disease (particularly cardiovascular disease)
- Expertise in Molecular Immunology and Genetics; Ruminant Microbiology; Molecular Genetic Screening; and Animal Care and Welfare (dairy, cattle, goats, sheep, and poultry)
- Teaching and Research training of graduate and undergraduate students, high school teachers and high school students in the area of Animal Health and Molecular Immunology and Genetics

Research Support

USDA-NIFA- 2015-2018. Bio-Active Forages and Internal Parasite Control: Impact on Small Ruminants. Role (PI) ($600,000)
USDA-Foreign Agricultural Service: 2014-2016. Pigeon Pea in Guatemala (Food Security): Role: Co-PI
VDACS- Re-Introduction of Buckwheat (A Multi-use Crop) In Virginia, 2015-2017: Role: Co-PI
VDACS-Facilitating Coriander Production in Virginia, 2015-2017. Role: Co-PI
USDA-NIFA: 2012-2015. Interaction of Diet, Molecular Genetics, and Immune Health in the Production of Omega-Chevon. Role: PI ($600,000)
USDA-NIFA: 2009-2012. A Comprehensive Screening for Potential Biomarkers of Genetic Resistance or susceptibility to Gastrointestinal Nematode Infection in Small Ruminants Role: PI
($700,000)
AALGA: 2007-2008. Sustainable Goat Production in Alabama. Role: Co-PI
($100,000)
USDA-NIFA: 2007 – 2012. Integration of Molecular Agriculture and Human Health: The Use of Poultry for Studies on Cardiovascular Disease. Role: PI: ($600,000)
USDA-HEC: Commission on Higher Education: Graduate Research Scholars Program: 2006 -2008. Role: Tuskegee University PI: ($72,500)
National Science Foundation (NSF): 2005 - 2008. Center for Environmental and Cellular Signal Transduction Role: Tuskegee University PD: ($3.5 million**)**

Courses Taught: Nutritional Genomics (Guest Lecturer), Immunology and Serology Lecture and Lab (Biol 443), Small Ruminant Management Lecture and Lab (ANSC 350), Special Problems in Animal Science (ANSC 446, 447), Beef Cattle and Sheep Production Lecture and Lab (APSC 312), Immunology and Animal Diseases Lecture and Lab (APSC 407), Animal Molecular Immunogenetics Lecture and Lab (APSC 521), Animal Biotechnology Lecture and Lab (APSC 540), Human Molecular Genetics Lecture and Lab (APSC 621), Undergraduate Independent Studies (APSC 450), Graduate independent Studies (APSC 630), Graduate Research and Thesis (APSC 700)

NIH/NCMHD-Health Disparities: 2002 – 2007. Decoding the Turkey Genome for Genetic Traits Implicated in Dilated Cardiomyopathy in the African American Population. Role: PI: ($100,000)
USDA-NIFA: 2002 – 2007. The Use of Poultry as a Model for Human Heart Disease. Role: PI ($280,000)
USDA-NIFA: 2002 -2007. Integration of Nutrition and Sustainable Resource Management: Impact on Goat Health. Role: Co-PI ($593,460)

Selected Relevant Publications:

Corley MM and **A. Savage** (**2015)**. Expression of the DRB1*1101 Allele in Meat Goats Pasture Exposed to *Haemonchus contortus* (In press)
Corley MM **and J. Caviness. (2014)** Characterization of the TRPC3 Gene in Myotonic Goats: Further insight into Myotonia congenita and Muscular Dystrophy. Journal of Molecular Biology Research 4:42-50

Corley MM **and JR Ward (2013).** Expression of Fat and Cholesterol Biomarkers in Meat Goats. Journal of Molecular Biology Research 3:78-90

Corley MM **and JR Ward. (2013)** Expression of The Transient Receptor Potential Channel 4 (TRPC4) Gene in Goats Naturally Exposed to *Haemonchus contortus* Infection. Journal of Agricultural Science 5:212-221

Corley MM **and AA Jarmon. (2012).** A Common Beta tubulin Isotype-1 Gene Single Nucleotide Polymorphism as a Tool for Detection and Quantitation of Anthelmintic Resistant *Haemonchus contortus* in Grazing Goats. Journal of Agricultural Science, 4:1-11

Corley MM **and AA Jarmon. (2012**). Interleukin 13 as a Biomarker for Parasite Resistance in Goats Naturally Exposed to Haemonchus contortus. Journal of Agricultural Science 7: 31-40.

Novel Gene Discovery Releases:

Corley MM and **Savage, Allen Jr. (2014).** Molecular Analysis of Goat DRB1 (Exon2) - MHC-II-Complex implicated in resistance to Haemonchus contortus: Novel Nucleotide Sequence Submission. http://ncbi.nlm.nih.gov: GenBank ACCESSION: KM196595

Corley MM and **Ward, J.R. (2012).** Isolation and Analysis of Transient Receptor Potential Channel (TRPC) Genes in Goats:Implications for Study of Gastrointestinal Nematode Infection. : Novel Nucleotide Sequence Submission. http://ncbi.nlm.nih.gov: GenBank: Accession # JX962344

Corley, M.M. and **Caviness, J.E. (2010).** Analysis of a Transient Receptor Potential Channel 3 (trpc3) Gene in Myotonic Goats: A Potential Model for Human Cerebellar Ataxia and Myotonic Dystrophy. http://ncbi.nlm.nih.gov:ACCESSION: HQ847409