

# VITA

## I. PERSONAL DATA

### SUSAN J. LAMONT

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**DATE:** October 27, 2020

## II. RANK

C.F. Curtiss Distinguished Professor of Agriculture and Life Sciences

## III. EDUCATION

**Ph.D.** University of Illinois Medical Center, Chicago, 1980

**B.S.** Trinity Christian College, Illinois, 1975

## IV. PROFESSIONAL ACADEMIC EXPERIENCE

2019	Interim Director, Egg Industry Center, 1/5-time administrative appointment
2010-present	Equity Advisor, College of Agriculture and Life Sciences, 1/3-time administrative appointment
2004-present	Charles F. Curtiss Distinguished Professor in Agriculture and Life Sciences, Iowa State University
2001-2003	Head, Department of Animal Science, Iowa State University
1994-1997	Assistant Director for Research, Iowa Agriculture and Home Economics Experiment Station, 1/2-time administrative appointment
1991-2004	Professor, Department of Animal Science, Iowa State University
1991-1998	Allied Professor, Department of Microbiology, Immunology, Preventive Medicine, Iowa State University
1990	Faculty Improvement Leave, Spelderholt, Center for Poultry Research and Information Services, the Netherlands
1987-1991	Associate Professor, Department of Animal Science, Iowa State University.
1983-present	Full Member, Graduate Faculty, Iowa State University
1983-1987	Assistant Professor, Department of Animal Science, Iowa State University.
1980-1983	Postdoctoral Research Associate, Department of Veterinary and Animal Sciences, University of Massachusetts, Amherst.
1978-1979	Clinical Instructor, Department of Anatomy, Loyola University School of Dentistry, Maywood, IL.
1975-1980	Graduate Assistant, Department of Anatomy, University of Illinois Medical Center, Chicago, IL.

## V. ISU PERSONNEL RECORD

2019	Interim Director, Egg Industry Center, 1/5-time administrative appointment
2010-present	Equity Advisor, College of Agriculture and Life Sciences, 1/3-time administrative appointment
2004-present	C.F. Curtiss Distinguished Professor in Agriculture and Life Sciences, Iowa State University
2001-2003	Head, Department of Animal Science
1997-1999	Chair, Immunobiology Interdepartmental Graduate Program
1994-1997	Assistant Director for Research, Iowa Agriculture and Home Economics Experiment Station, Iowa State University
1992-present	Member, Interdepartmental Genetics Faculty
1991-2004	Professor, Department of Animal Science, Iowa State University
1991-1997	Allied Professor, Department of Microbiology, Immunology and Preventive Medicine, Iowa State University
1987-1991	Associate Professor, Department of Animal Science, Iowa State University.
1987-1990	Chair, Immunobiology Interdepartmental Graduate Program
1983-present	Member, Interdepartmental Immunobiology Faculty
1983-present	Full Member, Graduate Faculty, Iowa State University
1983-1987	Assistant Professor, Department of Animal Science, Iowa State University.

## VI. AWARDS AND HONORS

### Faculty:

Lamplighter Award, US Poultry and Egg Association, 2020  
Fellow, American Association for the Advancement of Science, 2019  
Outstanding Achievements in International Agriculture Award, College of Agriculture and Life Sciences, 2019  
Exemplary Faculty Mentor Award, Iowa State University, 2018  
WISE Inspiring Change: Faculty Advocate Award, ISU program for Women in Science and Engineering, 2016  
Diversity Enhancement Award, College of Agriculture and Life Sciences, 2016  
Fellow, International Society of Animal Genetics, 2016  
NRSP8 Distinguished Lecturer, USDA, 2016  
International Mission Award, Gamma Sigma Delta, ISU Chapter, 2015  
Distinguished Service to Agriculture Award, Gamma Sigma Delta, ISU Chapter, 2011  
Fellow, Poultry Science Association, 2009  
Embrex Pfizer Fundamental Science Award, Poultry Science Association, 2009  
Merck Award for Achievement, Poultry Science Association, 2007  
Rossmann-Manatt Faculty Development Award, ISU College of Agriculture and Life Sciences, 2007  
Midwest Poultry Consortium, Outstanding Service Award, 2005  
Charles F. Curtiss Distinguished Professor of Agriculture, 2004  
Mission Award for Research, Gamma Sigma Delta, ISU Chapter, 2004  
Helene Cecil Leadership Award, Poultry Science Association, 2003  
Faculty Excellence Award, Iowa Board of Regents, 2001  
Outstanding Achievement in Research Award, Iowa State University Foundation, 1999  
Walnut Grove-ISU Livestock Service Award, 1989

Student/Postdoc:

Association for Research in Vision and Ophthalmology Travel Fellowship, 1983  
Virginia Evans Award, Midwestern Branch of the Tissue Culture Association, 1979  
Presidential Award, Reticuloendothelial Society, 1978  
University of Illinois Graduate College Fellowship, 1975-1977  
Dean's List, Trinity Christian College/University of Illinois 1971-1980

## **VII. PROFESSIONAL ACTIVITIES BEYOND THE UNIVERSITY**

Editorial Appointments:

Editorial Advisory Board, *Avian Pathology*, 2017-present  
Associate Editor (Breeding and Genetics), *Poultry Science*, 2002-present  
Editorial Board, *Animal Biotechnology*, 1995-present  
Editorial Advisory Board: *Poultry and Avian Biology Reviews*, 1998-present  
Associate Editor, *Journal of Heredity*, 2000-2018  
Associate Editor (Immunology), *Poultry Science*, 1988-1996  
*Ad hoc* Reviewer of Manuscripts: *Science*, *Veterinary Immunology and Immunopathology*, *Animal Genetics*,  
*Journal of Heredity*, *Developmental and Comparative Immunology*, *Proceedings of the National Academy of Science USA*, *Journal of Immunology*, *Immunogenetics*, *BMC Genomics*, *BMC Genetics*

Scientific Society Leadership:

Scientific Organizing Committee, World's Poultry Congress, Paris, France, 2020  
Scientific Organizing Committee, Animal Genetics and Disease, Hinxton, UK, 2019  
Nominating Committee, International Society of Animal Genetics, 2012 (Chair), 2016  
Administrative Advisor, NC-1170 Multi-state Research project (2013-present)  
Nominating Committee, American Association of Veterinary Immunologist, 2011-2013 (chair, 2013)  
Genetics of Immune Response workshop chair, Society of Animal Genetics, 2010 - 2012  
Scientific Program Committee, International Society of Animal Genetics, 2008  
Organizing Committee, Animal Genomics for Animal Health Symposium, 2007  
Co-Chair, Organizing Committee, Genetics of Animal Health Symposium, 2005  
Scientific Program Committee, World's Poultry Congress 2004, 2000-2004  
Organizing Committee, International Conference on Animal Genetics 2000, 1997-2000  
Scientific Program Committee, World's Poultry Congress 2000, 1997-2000  
Executive Committee, International Society of Animal Genetics, 1996-2000  
USA Branch, World's Poultry Science Association, Director, 1992-1996  
Secretary, International Society of Animal Genetics, 1992-1996  
National Animal Genome Technical Committee, Secretary 1993-1994, Chair, 1994-1995  
Executive Committee, ISU Chapter of Sigma Xi, 1991-1995 (President 1994-1995)  
Poultry Science Association Scientist Liaison Committee, 1987-1998  
Chair, Immunology Program Committee, Poultry Science Association, 1987

Regional Undergraduate Education:

Midwest Poultry Consortium "Center of Excellence" Coordination Council, 2008 - 2009  
Executive Committee, Midwest Poultry Consortium "Center of Excellence" Coordination Council, 2003-2006

Scientific Peer-Reviews:

Academic Program review panel: Department of Animal Science, Virginia Tech, 2019  
Academic Program review panel (chair): Department of Animal Science, University of Nebraska, 2018  
Academic Program review panel: Poultry Science Department, Texas A&M University, 2017  
External Reviewer: Christian Doppler Laboratory for Innovative Poultry Vaccines, Vienna, Austria, 2015, 2018  
AAAS-managed review panel of King Abdulaziz City for Science and Technology (KACST), Kingdom of Saudi Arabia, 2015

BARD (US-Israel Binational Agriculture Research and Development Fund) Technical Advisory Committee, 2013-2015 (Chair, 2014)  
USDA-ARS Prospective Review Panel NP101: Animal Genomics, 2012 (Chair)  
AAAS-managed review panel of Strategic Technology Program (Animal Husbandry), Kingdom of Saudi Arabia, 2011  
USDA-ARS Retrospective Review Panel NP101: Animal Production and Animal Welfare, 2011  
USDA-CSREES Review Panel: Animal Science Department, Cornell University, 2009  
INRA Animal Genetics and Animal Genomics Programs, 2009  
Swedish Agricultural University, External Expert Panel to hire professor in Animal Molecular Genetics, 2008  
BARD (US-Israel Binational Agriculture Research and Development Fund) Animal Production Review Panel, 2004, 2005, 2006 (Chair), 2007 (Chair)  
USDA-ARS Retrospective Review Panel NP101 and NP105: Animal Production and Animal Welfare, 2006  
USDA-ARS Prospective Review Panel NP103: Animal Health-Genomics, 2006 (Chair)  
Department of Defense-TSCRP Integration Panel, 2005 - 2008  
USDA-NRI Review Panel: Animal Genomics, 2004, 2005 (Chair), 2008 (Chair)  
USDA-CSREES Review Panel: Poultry Science Department, University of Georgia, 2002  
Midwest Poultry Research Program Review Panel, 2001, 2005  
USDA-ARS Review Panel: Infectious Disease Research Laboratory, 1998  
USDA-CSRS Review Panel: Poultry Science Department, University of Wisconsin, 1994  
USDA-NRI Review Panel: Animal Molecular Genetics, 1992, 1994, 1997  
USDA Review Panel: Molecular and Cellular Basis of Disease, 1991  
NSERC Review Panel: Poultry Biotechnology Industrial Chair, 1989  
CSRS Review Panel: Avian and Poultry Science Department, Cornell University, 1988  
*Ad hoc* Reviewer, NSF, US-Israel BARD and USDA (Animal Health, Animal Science, Biotechnology, Small Business Innovation) research grants

*Professional Society Membership:*

American Association for the Advancement of Science  
American Association of Immunologists  
Conference of Research Workers in Animal Disease  
Gamma Sigma Delta  
International Society for Animal Genetics (Fellow)  
Poultry Science Association (Fellow)  
Sigma Xi  
World's Poultry Science Association

## **VIII. GRANTS AND CONTRACTS RECEIVED**

GRANTS TOTAL > \$21,000,000

## **IX. GRADUATE STUDENTS**

Degrees Completed:

Kaylee Rowland, "Genomic evaluation of response to environmental challenges of commercial egg-laying chickens", 2018, Ph.D. Major: Interdepartmental Genetics and Genomics. Present position: Geneticist, Hy-Line International, Dallas Center, IA

Melissa S. Deist, "Host transcriptomic response to Newcastle disease virus in relatively resistant and susceptible inbred chicken lines", 2018. Ph.D. Major: Interdepartmental Genetics and Genomics. Present position: Research Scientist, Exact Sciences, Madison, WI

Damarius Fleming, (J. Reecy, co-advisor), "Examination of the genomic architecture of divergent poultry populations that underlies adaptation, tolerance, and resilience to environmental stressors", 2016. Ph.D. Major: Interdepartmental Genetics and Genomics. Present position: postdoc, USDA-ARS National Animal Disease Center

Angelica Van Goor, "The genomics of heat stress and immune response in chickens", 2016. Ph.D. Major: Interdepartmental Genetics. Present position: postdoc, AAAS Policy Fellow, USDA-NIFA, Washington DC

Hongyan Sun, "Transcriptome analysis of primary lymphoid tissues in response to avian pathogenic *Escherichia coli* (APEC)", 2015. Ph.D. Major: Animal Breeding and Genetics. Present position: associate professor, Yangzhou University, Yangzhou, China

Derrick Jamaal Coble, "The effects of biotic and abiotic stressors on gene expression in chickens", 2013. Ph.D. Major: Interdepartmental Genetics. Present position: assistant professor, Florida A&M University, Tallahassee, FL

Erin Elizabeth Sandford, "Whole transcriptome response of chicken spleen and peripheral blood leukocytes to avian pathogenic *Escherichia coli*", 2011. Ph.D. Major: Interdepartmental Genetics. Present position: research associate, University of Michigan

Ceren Ciraci, "Molecular Genetic Assessment of Chicken Macrophage Innate Immunity: Toll-like Receptors, Mechanisms of Action, and Kinetic Transcriptome Profile", 2010, Ph.D., Major: Interdepartmental Genetics, Present position: assistant professor, Istanbul Technical University, Turkey

Sarah Beth Redmond, "Genetic and Dietary Effects on Chicken Heterophil Function and Immune Response to *Salmonella enteritidis*", 2010, Ph.D., Major: Interdepartmental Genetics, Present position: Assistant Professor, Radford University, VA

Jennifer E. Cheeseman, "Avian Immunology, immunogenetics, and host immune response to *Salmonella enteritidis* infection in chickens", 2007, Ph.D.; Major: Immunobiology. Present position: Associate Scientist, University of Minnesota

Jason R. Hasenstein, "Single, several, saturated: multilevel SNP analysis for *Salmonella* response in young chicks", 2007, Ph.D.; Major: Interdepartmental Genetics. Present position: Midwest Account Manager, Bioline, Brookfield, WI

Joseph P. McElroy, "Mapping Quantitative Trait Loci for Economic Traits in Chickens", 2005, Ph.D.; Major: Interdepartmental Genetics (Co-Major Professor: Jack C. M. Dekkers). Present position: Research Scientist, Center for Biostatistics, The Ohio State University.

Joanne Staats Powell, Creative Component: "Optimization of experimental infections with *Heterakis gallinarum* in young chickens", 2004 M.S.; Major: Professional Agriculture (Off-campus program). Present position: Research Scientist, Merck, NJ.

Huaijun Zhou, "Dissection of Polygenic Control of Antibody Kinetics in Adult Chickens", 2002, Ph.D. (Also "Statistical Analysis of Functional Divergence in Gene Families" M.S. 2003). Present Position: Professor, Poultry and Animal Science, University of California-Davis.

Wei Liu, "A Candidate Gene Analysis for Response to *Salmonella Enteritidis* Challenge or Vaccination in Young Chicks", 2002, Ph.D. Present Position: Senior Biostatistician, St. Jude's Children's Hospital, Memphis, Tennessee.

Lynn Heltemes, "POU domain genes and the immunoglobulin octamer motif in chickens", 1997, Ph.D. (Co-Advisor: C. K. Tuggle). Present Position: Associate Scientist, University of Minnesota

Chung-Hsin Hsu, "Cell-specific and interferon inducible expression of chicken major histocompatibility class II genes", 1997, M.S. (Co-Advisor: S. L. Carpenter). Present Position: Unknown.

Yunfei Chen, "Identification and characterization of a chicken major histocompatibility complex class II gene promotor", 1995, Ph.D. (Co-Advisor: S. L. Carpenter). Present Position: Senior Scientist, ThermoFisher, Fremont, CA.

Sharon T. Franklin, "Effects of Vitamin A (13-cis-retinoic acid) on the Immune System of Cattle", 1993, Ph.D. (Co-Advisors: B. Nonnecke, J. Young). Present Position: retired. (Academic advisor, not research supervisor; therefore, not co-author on publications).

Ronald P. Kean, "Index Selection for Multitrait Immunocompetence in White Leghorn Chickens", 1993, M.S. (Co-Advisor: A. E. Freeman). Present Position: Instructor, Department of Animal and Poultry Science, University of Wisconsin-Madison.

Edward M. Steadham, "T Lymphocyte Reactivity and Antibody Response to a Synthetic Peptide (Glutamic Acid-Alanine-Tyrosine) as a Marker for Disease Resistance in Chickens", 1991, Ph.D. Present Position: Research Associate, Department of Animal Science, Iowa State University.

Paula L. Munns, "Lymphocyte Subpopulations in Chickens with Regressing or Progressing Tumors Induced by Rous Sarcoma Virus", 1990, M.S. Present Position: Research Laboratory Technician, Upjohn, Kalamazoo, MI.

Shen Cheng, "Genetic Selection for Immunocompetence in Chickens", 1990, Ph.D. Present Position: Analytics Team Leader, Caterpillar Inc., Milwaukee, WI

Janet E. Fulton, "Ontogeny, expression and molecular characterization of the A blood group system of the chicken", 1989, Ph.D. Present Position: Molecular Geneticist, Hy-Line International, Dallas Center, IA.

Marlene G. Ellis, "Characterization of turkey complement and its role in defense against Escherichia coli infection", 1987, M.S. (Co-Advisor: L. Arp). Present Position: Associate Professor, University of Delaware.

Chong Dae Kim, "Genetic associations of major histocompatibility complex phenotypes with body weight, egg production, and immune response in S1 White Leghorn chickens", 1987, M.S. (Co-Advisor: M. Rothschild). Present Position: Director of Poultry Research, National Livestock Experiment Station, Kyungki-Do, Korea.

Kevin L. Knudtson, "Genetic associations of interleukin-2 levels in the chicken", 1987, M.S. Present Position: Director of DNA Facility, University of Iowa, Iowa City, IA.

#### Current Graduate Students:

John Hsieh, Ph.D. Candidate, Bioinformatics and Computational Biology Major. Degree expected 2020

Current POS Committees: 4 Ph.D.  
Have served on 50+ POS Committees

#### Postdoctoral Trainees and Current Positions:

Dr. Melissa Monson, 2015-present  
Dr. Jibin Zhang, 2015-2017, Postdoctoral Fellow, City of Hope, Arcadia, CA  
Dr. Chungkao Wang, 2010-2013, Statistical Geneticist, Cobb-Vantress, Siloam Springs, AK  
Dr. Laknath Peiris, 2008-2010, Senior Lecturer, Univ Peradeniya, Sri Lanka  
Dr. Behnam Abasht, 2006-2008, Associate Professor, University of Delaware, Newark, DE  
Dr. Abebe Hassen, 2006-2008, Researcher, DuPont-Pioneer, Johnston, IA  
Dr. Xianghai Ye, 2004-2006, Research Scientist, Monsanto, IA  
Dr. Huaijun Zhou, 2002-2004, Professor, University of California Davis, Davis, CA  
Dr. Massoud Malek, 2001-2002, Research Scientist, Swiss Federal Institute of Technology, Zurich, Switzerland  
Dr. Nader Deeb, 1999-2002, Technical Director of Genetics and Genomics, Sexing Technologies, Navasota, TX  
Dr. Yunfei Chen, 1996-1998, Senior Research Scientist, Thermo Fisher Scientific, Fremont, CA  
Dr. N. Lakshmanan, 1993-1997, Research Scientist, Merck  
Dr. Edward Smith, 1992, Professor, Virginia Tech  
Dr. Yoram Plotzky, 1991-1992, CEO, Galil Genetic Analysis, and Attorney, Israel  
Dr. Jacob Pitcovski, 1986-1988, Professor, Tel Hai College, and Scientist, Galilee Research Institute, Israel  
Dr. Loren Peterson, 1985-1986  
Dr. Lynne Wathen, 1983-1985

#### Visiting Scholars (International):

Dr. Hui Yuan (China)  
Dr. Ana Paula Del Vesco (Brasil)

Dr. Hyun-Jun Jang (Korea)  
Dr. Yan Wang (China)  
Mr. Xinzheng Jia (China)  
Dr. Anna Slawinska (Fulbright – Poland)  
Ms. Xi Lan (China)  
Dr. Jianqin Zhang (China)  
Dr. Qinghua Nie (China)  
Ms. Ling Lian (China)  
Dr. Shouqun Jiang (China)  
Dr. Jingdong Hu (China)  
Dr. Guobin Chang (China)  
Dr. Sanjeev Kumar (India)  
Mr. Joseph Powell (Scotland)  
Ms. Fariba Izadi (Canada)  
Ms. Sham Beyene (Netherlands)  
Dr. Ahmed Sayed Ahmed (Fulbright – Egypt)  
Mr. Behnam Abasht (France)  
Dr. Jan van der Poel (Netherlands)  
Mr. Basav Hangalapura (Netherlands)  
Mr. Eyal Koren (Israel)  
Ms. Judith Kramer (Netherlands)  
Dr. Hui Li (China)  
Mr. Huaijun Zhou (China)  
Mr. Jun-gu Choi (Korea)  
Mr. Bart Buitenhuis (Netherlands)  
Dr. Steffen Weigend (Germany)  
Dr. Avigdor Cahaner (Israel)  
Dr. Laila Goher (Egypt)  
Dr. Jose Espinoza-Velazquez (Mexico)  
Dr. Pierre Pare (Canada)

## **X. RESPONSIBILITIES**

### **TEACHING (20% for most years; presently at 5%):**

Graduate Studies 565 – Responsible Conduct of Research (50%). Offered fall semesters, 2013-2017.  
Animal Science 540 - Genetic Regulation of Livestock Immunology (100%). Offered alternate years, since 1985-present.  
Animal Science 653A - Applied Poultry and Swine Breeding (50%). Offered alternate years, since 1983-present.  
Animal Science 658 - Seminar in Animal Breeding and Genetics. Instructor, approximately every 6 years (2021).  
Animal Science 452X – Animal Industry and Veterinary Genetics (poultry section, 6 lectures)  
Animal Science 699A - Section LM, Research in Animal Breeding (100%).  
IMB 699A - Section LM, Research in Immunobiology (100%)  
Gen 699 – Research in Genetics (100%)  
Animal Science 490G - Independent Study in Poultry Science (100%). Offered on request.  
Animal Science 224X - Companion Animal Science (course development team)  
Animal Science 451X - Biotechnology in Animal Science (course development team)  
Major Professor for graduate students

### Guest Lecturer:

Animal Science 352 - Livestock Improvement through Animal Breeding  
Animal Science 353 - Designing Breeding Programs for Livestock  
Animal Science 451 - Animal Biotechnology  
Animal Science 501 - Survey of Animal Science Disciplines  
Animal Science 510 - Applied Animal Breeding  
University Studies 321 - Genetic Manipulation of Animals

### Mentorship:

- Postdoctoral trainees and visiting scholars and scientists
- Graduate student research rotations (Interdepartmental majors of Genetics; Immunobiology; Bioinformatics and Computational Biology; USDA National Needs fellows in Animal Biotechnology)
- Undergraduate research programs (George Washington Carver, Howard Hughes Internships, Program for Women in Science and Engineering, Minorities in Agriculture Program, NSF-REU Summer Internships)

**RESEARCH (80% for most years, presently at 55%):**

Research in poultry immunogenetics and poultry molecular genetics is focused on elucidating the molecular genetic control of complex biological traits including resistance to the negative impacts of heat stress, disease resistance, immune response, and production traits. The overall goals are to elucidate basic mechanisms of genetic regulation of fitness and health in poultry, to identify genetic markers of value in selecting heat-resistant, disease-resistant and production-efficient poultry, and to isolate and characterize genes and proteins that are important in fitness and performance. Research projects include studies of heat stress, growth and development, DNA markers for biological fitness traits and resistance to disease, and biodiversity. Approaches include designed mating of chicken resource populations, detailed evaluation of biological performance, laboratory analysis of genetic variation in structure and expression, surveys of biodiversity, statistical testing of associations between genotypes and phenotypes, or among phenotypes, and bioinformatic analyses of data. Collaborative studies on application of genomic technologies in poultry breeding.

**ADMINISTRATION (20%, April 1, 2019-Dec 31, 2019):**

Interim Director, national Egg Industry Center. Provide leadership and supervision in the Center's operation to fulfill its mission of adding value to the egg industry by facilitating research and learning for egg producers, processors and consumers through national and international collaborations. Work with the Center's Advisory Board to identify issues of importance to the egg industry and strategies to address them. Contribute to private fund-raising efforts for the Center's endowment.

**ADMINISTRATION (33%, December 1, 2010 - present):**

Equity Advisor, College of Agriculture and Life Sciences. Responsible for leading the College of Agriculture and Life Sciences' ADVANCE effort. Work with college leadership to develop programs, policies, and distribute information to improve working environments. Serve as a liaison between the College of Agriculture and Life Sciences and ADVANCE. Lead and provide support for ADVANCE events on campus, and encourage participation by others in ADVANCE events.

**ADMINISTRATION (50%, October 1, 2001 - July 31, 2003):**

Chair, Department of Animal Science. Provide effective, visible leadership to department. Maintain strong, positive relationships with major stakeholder organizations. Serve as department's advocate and point-of-contact with college administration. Coordinate activities of departmental administrative team. Effectively and responsibly manage department's fiscal, physical and personnel resources. Allocate program resources in recognition of priorities, needs, and performance. Assess performance of faculty; provide constructive feedback and appropriate reward through salary and other recognition. Supervise departmental administrative staff. Maintain open communication channels with faculty, staff and students. Enhance diversity in personnel and programs. Proactively plan future directions of department. Prioritize needs for new faculty; recruit and hire excellent new faculty; facilitate their success. Set standards of excellence for all departmental activities.

**ADMINISTRATION (50%, 1994-1997):**

Assistant Director, Iowa Agriculture and Home Economics Experiment Station. Assist in development and administration of research in the Iowa Agriculture and Home Economics Experiment Station (IAHEES), including various issues of interest to the College of Agriculture and IAHEES. Strengthen opportunities for interdisciplinary research and graduate education, assist with identification of extramural grants and contracts. Provide coordination of the station's research project system. Develop programs to enhance faculty success in securing external grants. Serve as administrative advisor for regional projects. Represent the IAHEES and College of



Agriculture as needed within the university and to clientele and commodity groups, legislative groups, and the general public.

**EXTENSION:** No Formal Appointment

Service to industry via dissemination of research results in published and oral formats, presentations at industry meetings, answering phone and email inquiries on topics of poultry genetics, immunology and molecular biology, on-site visits to companies.

**INTERNATIONAL ACTIVITIES:** No Formal Appointment

A. Foreign Travel

<u>Year</u>	<u>Location</u>	<u>Function</u>
2019	Scotland	Scientific advisory board, Roslin Institute, University of Edinburgh Center for Tropical Livestock Genetics and Health
2019	Tanzania	Joint research coordination for USAID project
2019	England	Co-organizer, "Animal genetics and disease" Wellcome Trust
2018	Scotland	Scientific advisory board, Roslin Institute, University of Edinburgh
2018	Ghana	Joint research coordination for USAID project
2018	England	Present research, Avian Immunology Research Group
2018	Austria	External review of Laboratory for Innovative Poultry Vaccines
2018	Australia	Present invited talk, International Society of Animal Genetics
2018	Uganda	Present Invited talk, Keystone Conference, Genetic Diversity and Disease
2017	Scotland	Scientific advisory board, Roslin Institute
2017	Canada	NE1334 Technical Committee meeting
2017	France	Present invited talk, European Poultry Genetics Symposium
2017	Scotland	Present invited talk, World Veterinary Poultry Association
2017	England	Present invited talk, Animal Genetics and Disease, Wellcome Trust
2017	Tanzania	Joint research coordination
2016	China	Present invited talk, World's Poultry Congress; also at NEAU
2016	Ghana	Joint research coordination
2015	Scotland	Scientific advisory board, Roslin Institute
2015	Finland	Present invited talk, European Poultry Genetics Symposium
2015	England	Present research talk, Global Alliance of Researchers in Avian Disease
2015	Tanzania	Joint research coordination
2015	Austria	Review of named professorship research program

2014	South Korea	Present invited talk as Asia-Pacific Poultry Congress
2014	Ghana	Research training
2014	Canada	Present invited talk, World Congress Genetics Applied to Livestock production
2014	China	Present invited talk at South China Agricultural University
2014	Israel	Serve on grant review panel
2014	Tanzania, Ghana	Research collaboration
2014	China	Present invited talk at China Agricultural University
2013	Germany	Present research at WPSA Physiology Working Group meeting
2012	Scotland	Present research at Avian Immunology Research Group meeting
2012	Australia	Present research at International Society of Animal Genetics conference
2011	Scotland	Serve on industry advisory board; present research at European Poultry Breeders Roundtable
2011	Scotland	Present research at International CHICK meeting
2010	Spain	Invited presentation in Ensminger International School
2010	Scotland	Chair session at International Society of Animal Genetics
2010	Germany	Participation in World Congress of Genetic Applied to Livestock Production
2009	France	Present research paper at conference
2009	France	Review of INRA (French Federal Research) animal genetics and genomics programs
2009	China	Deliver keynote presentation at national scientific conference
2008	Scotland	Present research at Intl. Symposium on Animal Functional Genomics
2008	Netherlands	Serve on Scientific Committee for International Society of Animal Genetics
2008	Australia	Invited presentation at World's Poultry Congress
2007	France	Participate in College of Agriculture delegation to finalize cooperative agreement with INRA
2007	Israel	Visit with research collaborators in BARD project, draft new proposal
2007	Canada	Participate in NE-1016 multistate research meeting
2007	France	Serve on Scientific Organizing Committee for Animal Genomic for Animal Health Symposium
2007	Canada	External examiner on Ph.D. exam at University of Guelph
2006	Scotland	Working group meeting with industrial research collaborators
2006	France	Present research paper at Avian Immunology Research Group symposium

2006	Brazil	Invited presentation at World Congress of Genetics Applied to Livestock production
2006	Canada	Invited presentation at Ancillary Scientist's Symposium, and Informal Nutrition Symposium, of Poultry Science Association annual meeting
2005	Netherlands	External examiner on Ph.D. defense, invited research presentation and visit with research collaborators at Wageningen University
2005	Brazil	Invited presentation at AviSui2005 Conference
2005	Croatia	Serve as member of Scientific Organizing Committee and session chairperson at the Poultry Genetics Symposium 2005
2004	Scotland	Invited presentation at Genesis-Faraday Symposium and invited seminar at Roslin Institute
2004	United Kingdom	Invited presentation at Joint Meeting of British Society of Animal Science and World's Poultry Science Association
2004	Turkey	Service on Scientific Organizing Committee and invited presentation at World's Poultry Congress
2004	Canada	Present research paper at International Veterinary Immunology Society meeting
2004	Germany	Present research paper at Avian Immunology Research Group meeting
2003	Israel	Research
2003	China	Research, Invited lectures at Northeast Agricultural University, Jiangsu Poultry Institute, Yangzhou University
2003	Turkey	Professional Society Service, World's Poultry Science Association
2003	Netherlands	Conference Participation, European Poultry Genetics Conference
2002	France	Invited paper presentation, 2 <sup>nd</sup> International Symposium on Candidate Genes for Animal Health and World Congress of Genetics Applied to Livestock Production
2002	Germany	Professional Society Service, World's Poultry Science, and Conference Participation, European Poultry Symposium
2002	Cyprus	Invited paper presentation, Avian Immunology Research Group
2001	China	Research
2001	Sweden	Paper presentation, International Veterinary Immunology Symposium
2001	Turkey	Invited paper presentation, International Symposium on Poultry Meat Quality
2000	Canada	Professional Society Service, World's Poultry Association Research and Professional Society Service, World's Poultry Science
1999	Israel	Research collaboration
1998	New Zealand	Research and Professional Society Service, International Society of Animal Genetics
1998	Israel	Research collaboration
1998	Finland	Paper presentation, Avian Immunology Research Group
1997	Czech Republic	Research, Paper presentation, AVIAGEN Conference
1997	Germany	Research, Company visit (enhance teaching)

1997	New Zealand	Professional Society Service, International Society of Animal Genetics
1996	France	Research and Professional Society Service, International Society for Animal Genetics
1996	Austria	Research, Avian Immunology Research Group
1995	France	Professional Society Service, International Society for Animal Genetics
1995	Israel	Research
1994	Czech Republic	Professional Society Service, International Congress for Animal Genetics
1994	England	Paper Presentation, Avian Immunology Research Group
1993	Czech Republic	Professional Society Service, International Society for Animal Genetics
1993	Israel	Research, Invited Seminar, Hebrew University of Jerusalem, Rehovot
1992	Netherlands	Professional Society Service; Research; Paper Presentation, World's Poultry Congress; External Examiner of Ph.D. Thesis, Wageningen Agricultural University
1992	Switzerland	Professional Society Service; Invited Paper, International Congress for Animal Genetics
1991	Israel	Research, Invited Seminars, Hebrew University of Jerusalem, Rehovot and Jerusalem Campuses
1990	Scotland	4th World Congress of Genetics Applied to Livestock Production, Paper Presentation
1990	Belgium	Research
1990	Germany	Invited Seminar, Celle Small Animal Research Institute
1990	Netherlands	Faculty Improvement Leave, Research
1988	Netherlands	Invited Seminar, Spelderholt Poultry Research Center
1988	Canada	Invited Paper, American Dairy Science Association
1987	Canada	Invited Seminar, McGill University
1987	Scotland	Invited Paper, British Poultry Breeders Roundtable
1985	Netherlands	Invited Seminar, Wageningen Agricultural University
1985	Switzerland	Research
1985	Austria	Paper Presentation, Avian Immunology Research Group
1985	France	Invited Seminar, INRA

B. Hosted International Visiting Scientists for periods of one to twelve months: Brasil, Scotland, Netherlands, Canada, China, France, India, Mexico, Egypt, Israel, Germany, S. Korea, Poland

C. Participated in international research collaborations: Avian Cytokine Research (UK); International Chicken SNP Consortium (global project), Genetics of Immune Response and Disease Resistance in Chickens (Germany, US), Chicken MHC RFLP Standardization Project (Austria, France, Israel, Netherlands, US), Mapping Sequence Tagged Sites in Chickens (UK, US), Molecular Markers for Disease Resistance (Israel, US), Marek's Disease and Major Histocompatibility Complex Class II Genes (Canada, US), Breeding for Resistance to Heat Stress (US, Uganda), Breeding for Resistance to Newcastle Disease Virus and Heat Stress (US, Ghana, Tanzania), Resistance and immunity to Avian Pathogenic E coli. (UK, US)

**SERVICE (5%):**

Department:

Diversity, Equity and Inclusion Committee member, 2018-present  
Faculty Mentor (Peggy Auwerda), 2018-present  
Faculty Mentor (Aileen Keating), 2018-present  
Faculty Mentor (Josh Selsby), 2018-2019  
Faculty Mentor (Nick Serao), 2017-present  
Faculty Mentor, (Elizabeth Bobeck), 2016-present  
Faculty Mentor, (Stephan Schmitz-Esser), 2015-present  
Faculty Search Committee, Poultry Nutrition, 2014-2015  
Faculty Search Committee, Metagenomics, 2014-2015  
Awards and Recognition Committee, 2008-present  
Seminar Committee, 2013 - 2018  
Art Committee, 2010 – 2014; 2016-present  
Graduate Curriculum and Awards committee, 2010 - 2014  
Faculty Mentor (Susan Carpenter), 2009-2017  
Faculty Mentor (Mike Persia), 2009-2013  
Faculty Search Committee (Poultry Nutrition), 2008 - 2009  
Faculty Search Committee Chair (Muscle Biology), 2007-2008  
Co-Organizer, Poultry Science Day, 2006  
Lush Chair Faculty Search Committee, 2005-2006  
Faculty Mentor (V. Wilke), 2005-2007  
Faculty Mentor (M. Ellinwood), 2004-2020  
Faculty Mentor (J. Reecy), 1999-2010  
Faculty Search Committee (Bioinformatics), 1999-2000  
Professor-in-Charge, Poultry Farm, 1999-2003  
Faculty Search Committee (Nutrition – 2), 1999-2000  
Graduate Curriculum, 1997-2007  
Faculty Search Committee (Cattle Molecular Geneticist), 1997-1998  
Faculty Personnel Affairs Committee, 1985-1998  
Laboratory Animals Committee, 1987-1995  
Faculty Governance Committee, 1992-2008 (Chair, 2005)  
Faculty Search Committee (Environmental Specialist), 1996  
Research Strategic Planning Committee, 1995  
Departmental Mission Statement Committee, 1995  
Faculty Search Committee (Swine Geneticist-2), 1994-1996  
Contact Person, Women in Science and Engineering Program, 1993  
Preliminary Evaluation Committee, Promotion and Tenure, 1993, 1996, 1999, 2000, 2010  
Finance Chair, PSA-85 Host Committee, 1983-1985  
Acting Coordinator, Poultry Section, 1987-1988  
Co-Chair, Molecular Biology/Gene Mapping Faculty Search, 1990  
ASAS-90 Host Committee, 1990  
Chair, Faculty Improvement Leave Committee, 1991-1992

College:

Dean's Evaluation Committee, 2015  
Search Committee, Assistant Dean of Diversity, 2012  
Dean's Cabinet, 2010 - present  
Strategic Planning Committee, 2011  
Dean's Evaluation Committee, 2009-2010  
Search Committee Chair, FSHN Chair, 2003-2004  
Strategic Planning Committee, Research Subcommittee Chair, 1999-2000  
Search Committee, Dean of Agriculture, 1999-2000  
Coordinating Council on Technology Transfer Representative, 1994-1997  
Reviewer, IAHEES Project Outlines, Continuous

Biotechnology Council Representative, 1991-1994  
Undergraduate Honors Committee, 1993-1995  
Visiting Professor Program, 1993-1994  
College Strategic Planning Committee-Research Subcommittee, 1993-1994  
Search Committee, Executive Associate Dean of Agriculture, 1994-1995

University:

Publication Subvention Grants committee, 2012-present  
Interdepartmental Genetics Supervisory Committee, ex officio, 2011 - 2018  
Interdepartmental Genetics Admissions Committee, 2008 - 2018t  
ADVANCE Council, 2010 - present  
Hosted Gene Ontology (GO) Workshop at ISU, presented by AgBase personnel, 2009  
Center for Integrated Animal Genomics Supervisory Committee, 2008 – 2013  
Interdepartmental Immunobiology Admissions Committee, 2008 - present  
Distinguished Professor Selection Committee, 2007 - 2009  
President's Budget Advisory Committee, 2005 - 2006  
Bailey Research Award Selection Committee, 2002  
Provost Search Committee, 2002  
Interdepartmental Genetics Graduate Affairs Committee, 2000-2001  
Chair, ISU Immunobiology Interdepartmental Graduate Program, 1987-1990; 1997-1999  
Osborn Club Steering Committee, 1998-2002  
Interdepartmental Genetics Workshop Committee, 1998  
Interdepartmental Genetics Recruiting Committee, 1995-1998  
Coordinating Council on Technology Transfer, 1994-1997  
Microbiology, Immunology and Preventive Medicine Departmental Internal Review Committee, 1993-1994  
ISU Chapter of Sigma Xi, President, 1994-1995 (Executive Committee, 1991-1995)  
Biotechnology Council, 1991-1994  
Zaffarano Prize Selection Committee, 1992  
Microbiology, Immunology and Preventive Medicine Ad hoc Curriculum Committee, 1991  
Chair, Microbiology, Immunology and Preventive Medicine Department DEO Search, 1991-1992  
Review Committee, Bioethics Symposium Participants, 1991  
Bioethics Committee, 1990-1991  
University Research Grants Proposal Review Committee, 1990  
Microbiology Department Faculty Search, 1990  
Supervisory Committee, Center for Immunity Enhancement in Domestic Animals, 1988-1995  
Biochemistry Department Faculty Search, 1988  
Animal Facilities Inspection Committee, 1987-1991  
Animal Facilities Long-Range Planning Committee, 1987-1991  
Provost Search Committee, 1987  
Chair, Biological Sciences Program of Study Review Committee, 1988-1989 (Member, 1985-1989)  
Graduate Faculty Cabinet, 1988-1989  
Immunobiology Supervisory Committee, 1984-1990, 1992-1995, 1997-2000

Outreach:

Respond to requests for science-based information in my areas of expertise. Provide advice to breeding companies. As a service to the university, I worked with information services units to produce features (print or video) on aspects of my research program. These were used to enhance the ISU image to various audiences (potential donors, incoming freshman, alumni, sports fans, athletic recruits, etc.). An ISU television commercial for use at basketball game half-time was produced in my lab. I provided an audio interview used in the university orientation videotape. Several feature articles in university publications highlighted training of undergraduates in special programs (i.e. Women in Science, Undergraduate Research Assistants) in my laboratory, or my laboratory's research programs. Television segment was produced for Iowa Public Television, Market-to-Market show. Two interviews were recorded and broadcast in the Midwest with Harvest Public Radio.

Profession:

American Association for the Advancement of Science

Review panel, Research Competitiveness Service (RCS) for King Abdulaziz City for Science and Technology (national science agency of Saudi Arabia), 2011

#### Poultry Science Association

Award Committee, Early Achievement (Research, Industry, Teaching, Extension), 2008, 2009 (chair)  
Associate Editor (Breeding and Genetics), Poultry Science, 2002-present  
Guest Editor, Poultry Science, Invited reviews in poultry genomics, 2005-2006  
Scientist Liaison Committee, 1987-1997  
Associate Editor (Immunology), Poultry Science, 1988-1995  
Co-organizer, Current Advances in Immunology Symposium, 1993  
Graduate Student Research Manuscript Award Committee, 1989  
Chair, Immunology Program Committee, 1987

#### International Society of Animal Genetics

Co-chair, Genetics of Immune Response Workshop, 2012 (Cairns, Australia)  
Chair, Genetics of Immune Response Workshop, 2010 (Edinburgh)  
Standing Committee Chair, Genetics of Immune Response, 2008-2010  
Scientific Organizing Committee, Year 2008 Conference (Amsterdam)  
Organizing Committee, Year 2000 Conference (Minneapolis)  
Executive Committee, 1996-2000  
Secretary, 1992-1996  
Co-organizer, Avian MHC Workshop, 1990

#### Sigma Xi

President, ISU Chapter, 1994-1995  
Executive Committee, ISU Chapter, 1991-94

#### World's Poultry Science Association

Scientific Program Committee, World's Poultry Congress 2020 (Paris), 2017-2021  
Scientific Program Committee, World's Poultry Congress 2004 (Istanbul), 2000-2004  
Scientific Program Committee, World's Poultry Congress 2000 (Montreal), 1995-2000  
USA Branch Director, 1992-1996

#### Other

External Review, Department of Animal Science, Virginia Tech, 2019  
External Review (Chair), Department of Animal Science, University of Nebraska, 2018  
Roslin Institute, University of Edinburgh (UK), Scientific and Industry Advisory Board, 2018-present  
Technical University Munich, External Board to hire professor, 2018  
External Review, Department of Poultry Science, Texas A&M University, 2017  
Roslin Institute, University of Edinburgh (UK), Scientific Advisory Board, 2014-2018  
External Evaluator, Christian Doppler Lab, University of Veterinary Medicine, Vienna, Austria, 2015, 2018  
BARD Technical Advisory Committee, 2013-2015  
USDA-OSQR NP 101 Panel 2; Chair, 2012  
EU-US Animal Biotechnology Working Group, 2011  
USDA-ARS Retrospective Review Panel NP101: Animal Production and Animal Welfare, 2011  
NRSP-8 Poultry Workshop chair, Plant and Animal Genome meeting, 2011-2012  
External Review Panel, INRA Genetics and Genomics Programs, 2009  
External Review Panel: Animal Science Department, Cornell University, 2009  
Swedish Agricultural University, External Expert Panel to hire professor in Animal Molecular Genetics, 2008-2009  
NC-1170, Secretary, 2008-2009; Chair, 2010-2011  
NE-1034, Secretary, 2008; Chair, 2009

USDA-ARS-NADC, Scientist Search Committee (Research Microbiologist/VMO) 2007  
 Kansas State University, Distinguished Professor Review panel, 2008  
 Midwest Poultry Research Program Panel, 2005  
 DOD-TSCRP Integration Panel, 2005-2008  
 NIH Special PO1 Review Panel, 2004  
 BARD Review Panel (Animal Production), 2004, 2005, 2006 (Chair), 2007 (Chair)  
 CSREES Review Team, Department of Poultry Science, University of Georgia, 2002.  
 Associate Editor, *Journal of Heredity*, 2000-present  
 Editorial Board, *Animal Biotechnology*, 1989-present  
 Editorial Advisory Board, *Poultry and Avian Biology Reviews*  
 Scientific Advisory Board, AKC – Canine Health Foundation Competitive Grants Program  
 Chair, Research and Education Committee, National Tuberous Sclerosis Association, 1996-2002  
 Co-Editor, *The Major Histocompatibility Complex Region of Domestic Animal Species*,  
 CRC Press, Inc., 1996  
 CSRS Review Team, Poultry Science Department, University of Wisconsin, 1994  
 Ad hoc North Central Committee for Evaluating Alternative Management of Regional  
 Research, 1993-1994  
 USDA National Research Initiative Competitive Grants Program Review Panel in Animal Molecular  
 Genetics/Genomics, 1992, 1994, 1997, 2004, 2005 (Chair), 2008 (Chair)  
 USDA National Research Initiative Competitive Grants Program Review Panel in Molecular and Cellular  
 Basis of Animal Disease, 1991  
 NSERC Review Team of Poultry Biotechnology Industrial Chair, McGill University, 1989  
 CSRS Review Team, Avian and Poultry Science Department, Cornell University, 1988

## XI. MAJOR INVITED PRESENTATIONS OUTSIDE OF IOWA STATE UNIVERSITY

<u>Year</u>	<u>Title of Paper or Presentation</u>	<u>Meeting/Location</u>
2019	Some Like it Hot: Functional genomics of response to heat stress in poultry	Plant and Animal Genome Conference San Diego CA
2018	Some Like it Hot: Functional genomics of response to heat stress in poultry	International Society of Animal Functional Genomics, Adelaide, Australia
2018	Poultry genomics to improve Global Food safety	Genetics mini-symposium, Michigan State University
2018	Genomics to enhance poultry health Using biodiversity	Keystone Symposium, Genetic Diversity and Disease Kampala, Uganda
2017*	Genomics of response to abiotic and biotic stressors in poultry	European Poultry Genetics Symposium, St. Malo, France
2017*	Breeding for genetic resistance In poultry	World Veterinary Poultry Association, Edinburgh, Scotland, UK
2017	Cutting-edge animal genomics to enhance food security in Africa	Board for International Food and Agricultural Development, Washington, DC
2017	A bird's-eye view of genetics, genomics, immune response and disease	Animal Genetics and Disease, Wellcome Genome Campus, Hinxton, England, UK
2017*	Genomics of Response to Newcastle Disease virus	National Breeders Roundtable, St. Louis, Mo
2016*	Poultry immunogenetics: protecting health and food security, expressing genetic potential	World Poultry Congress, Beijing, China



2016	Genomics of response to environmental challenges in poultry	Northeast Agriculture University, Harbin, China
2015	Genomics of heat stress in poultry	Plant and Animal Genome conference, San Diego
2015	Genomics of heat stress in chickens	European Poultry Genetics Symposium Finland
2014	Genomics of host resistance to bacterial disease in poultry	Asian Pacific Poultry Association, Jeju Island, S. Korea
2014	Genomics of heat stress in chickens	WCGALP, Vancouver, Canada
2014	Genomics of chickens response to environmental stressors	South China Agricultural University, Guangzhou, China
2014	Genomics of chickens response to environmental stressors	China Agricultural University, Beijing, China
2013	Effect of embryonic thermal conditioning on post-hatch physiology, including blood parameters, bone mineralization and response of chicks to heat stress	Avian Physiology meeting, Germany
2012	Genetics and genomics of host response to food-safety bacterial infection in chickens	University of Delaware, Department of Animal and Food Sciences
2011	Deciphering the Genetics of Resistance to Salmonella in Poultry	Storer Lecture, Department of Animal Science, University of California - Davis
2010*	Genetics of Disease Resistance	Ensminger International School, Llieda, Spain
2009	Integrated Genomics to Enhance Host Resistance to Bacterial Colonization in Poultry	China National Poultry Conference, Harbin, China
2009	Genes, Immunity and Commercial Poultry: Lessons from the Chicken 3K SNP Chip	North Carolina State University, Department of Poultry Science
2008*	SNP Markers for Production and Egg Quality QTLs in Layer Lines	Avian Genomics Symposium, Mississippi State University, Starkville
2008	<i>Salmonella Saga</i> : Integrated Approaches to Understand the Genetics of Host Response to Bacterial Pathogens in Chickens	University of Maryland, "One-Day Wonder", College Park
2008*	Integrated Genomics to Enhance Host Resistance to Bacterial Colonization in Poultry	World's Poultry Congress, Brisbane, Australia
2008	Integrated Genomics to Enhance Host Resistance to Bacterial Colonization in Poultry	Emerging Infectious Diseases Symposium, Ames, IA
2007	Poultry Genetics and Genomics: Unscrambling the Egg	INRA-ISU Research Linkage Summit, Paris, France
2007	A Bird's-Eye View of the QTL Landscape*	National Breeders Roundtable, St. Louis, MO

2007	A Delicate Balance: the Immune System and Production in Livestock	Kemin Lectures for the Advancement of the Sciences, Kemin Industries, Des Moines, IA
2007	High Resolution, Advanced Intercross Mapping of Host Resistance to Salmonella Colonization*	Animal Genomics for Animal Health Symposium, Paris, France
2007	Poultry Genetics and Genomics at ISU: Unscrambling the Egg and Meeting the World's Need for Meat	Cobb-Vantress, Inc., Siloam Springs, AR
2007	Salmonella Saga: Integrated Approaches to Understand the Genetics of Host Response to Bacterial pathogens in Chickens	Interdepartmental Genetics Program, Texas A & M University, College Station
2006	Variation in Chicken Gene Structure and Expression associated with Food-Safety Pathogen Resistance**	Stadler Genetics Conference, Columbia, MO
2006	Integrated, Whole-Genome Approaches to Enhance Disease Resistance in Poultry*	World Congress of Genetics Applied to Livestock Production, Belo Horizonte, Brazil
2006	Impact of Genetic Variation in the Immune System on Production Traits and Metabolic Challenges in Poultry	Informal Nutrition Symposium, Poultry Science Association, Edmonton, Alberta, Canada
2006	Analysis of Quantitative Disease-Resistance Traits	Poultry Science Association Ancillary Scientists Symposium, Edmonton, Alberta, Canada
2005	A Bird's-eye View of Progress in Avian Immunology	25 <sup>th</sup> Anniversary Symposium, American Association of Veterinary Immunology, St. Louis, MO
2005	Genetic Resistance to Poultry Diseases	AveSui2005, Florianopolis, Brazil
2005	Integrated Approaches to Understanding the Genetics of the Chicken's Response to Salmonella	Wageningen University, the Netherlands
2005	Integrated Approaches Toward Cloning of QTLs for Resistance of Chickens to Salmonella	Plant and Animal Genome XIII, San Diego, CA
2004	Candidate Genes and Response to Salmonella in Chickens	Genesis-Faraday Symposium, Edinburgh, Scotland
2004	Candidate Genes for Important Biological Traits in Poultry	Roslin Institute, Scotland
2004	Comparative Genetic Approaches to Enhancing Immunity in Poultry	Comparative Biomedical Sciences Seminar, University of Minnesota
2004	New Advances in Controlling Poultry Disease	Joint Meeting of British Society of Animal Science and World's Poultry Science Association, UK Branch, York, United Kingdom
2004	Identification of Genes Affecting Immunity and Disease Resistance	World's Poultry Congress, Istanbul, Turkey
2004	Candidate Genes Associated with Response to Salmonella Enteritidis in Young Chickens	International Veterinary Immunology Society, Quebec City, Quebec, Canada
2004	Early Gene Expression Changes After Salmonella Challenge of Young chickens	Avian Immunology Research Group Meeting, Munich, Germany

2003	Candidate Genes for Important Biological Traits in Poultry	Northeast Agricultural University, Harbin, China
2003	Genome Scanning for Molecular Markers Linked to Important Biological Traits in Poultry	Northeast Agricultural University, Harbin, China
2003	Genetics of Immune Response and Disease Resistance in Poultry	Jiangsu Poultry Institute, Yangzhou, China
2003	Genetics of Immune Response and Disease Resistance in Poultry	Yangzhou University, Yangzhou, China
2003	Genetic Approaches to Improving Health in Poultry	Genetics of Pig Health Symposium, Des Moines, IA
2002	Avian Immunogenetics in the Era of Maps and Microarrays	Avian Immunology Research Group, Limosol, Cyprus
2002**	Candidate Genes for Response to Salmonella in Poultry	Candidate Genes for Animal Health, International Symposium, Montpellier, France
2002*	Candidate Genes for Immune Response and Disease Resistance in Chickens	National Breeder's Roundtable, St. Louis, MO
2002**	Unique Population Designs Used to Address Molecular Genetics Questions in Poultry	Poultry Science Association, Newark, DE
2001*	Utilizing Unique Genetic Populations to Identify Molecular Markers Associated with Economic Traits in Poultry	International Symposium on Animal Breeding and Genetics, Japanese Society of Animal Breeding and Genetics, Tokyo, Japan
2001*	Discovering the Molecular Genetics of Health and Biological Homeostasis in Poultry	International Workshop on Animal Genome Analysis, Society for Techno-Innovation of Agriculture, Forestry and Fisheries, Tsukuba, Japan
2001*	Genetics of Body Composition in a Novel Broiler Cross	XV European Symposium on the Quality of Poultry Meats, WPSA Turkish Branch, Kusadasi, Turkey
2000	Pursuing Genes for Fitness in Poultry	Poultry Science Department, Pennsylvania State University, State College, PA
2000	Poultry Production in the Future: Genetics and Health	Poultry Health and Management Extension Series, Pennsylvania
1997**	Impact of Genetics on Disease Resistance	Infectious Poultry Disease Symposium, Poultry Science Association, Athens, Georgia
1996*	Current Molecular Biologic Techniques in Selection of Poultry	Duck Research Symposium, Lake Geneva, Wisconsin
1995**	Chicken Genome Mapping Strategies: Expressed Sequence Tags, Heterologous Genes, and Genetic Regulatory Elements	USDA-ARS Symposium: Biotechnology's Role in the Genetic Improvement of Farm Animals, Beltsville, Maryland
1994*	Application of Biotechnology in the Poultry Breeding Industry	Beef Improvement Federation Meeting, Des Moines, Iowa
1994**	Transfection of a Putative Chicken MHC Class II Gene Promotor Region into Chicken Macrophages	Avian Immunology Research Group, Reading, ENGLAND
1993**	Immunogenetics	Avian Immunology Symposium, Poultry Science Association, East Lansing, Michigan

1993	Anonymous DNA Markers for Biological Traits in Chickens	Hebrew University of Jerusalem, Department of Genetics, Rehovot, ISRAEL
1992+	The Immune System: Distinguishing Self from Non-Self	Current Issues in Nutrition, Satellite Videoteleconference, ISU
1992+		
1992	The Chicken Major Histocompatibility Complex	International Conference on Animal Genetics, Genetics of Immune Response Workshop, Interlaken, SWITZERLAND
1991**	The Avian Major Histocompatibility Complex	Keystone Symposium: Manipulation of the Avian Genome, Lake Tahoe, CA
1991*	Selection for Immune Response in Chickens	National Breeders Roundtable, St. Louis, MO
1991	Genetic Markers for Disease Resistance in Chickens	Hebrew University of Jerusalem, Faculty of Agriculture, Rehovot, ISRAEL
1991	The Chicken Major Histocompatibility Complex	Hebrew University of Jerusalem, Faculty of Life Sciences, Jerusalem, ISRAEL
1991	The Major Histocompatibility Complex and Genetic Markers for Disease Resistance in Chickens	University of Illinois, Department of Animal Science, Urbana, IL
1990**	Immunogenetics and the MHC	North Central Avian Disease Conference, Columbus, Ohio
1990	Immunogenetics and Disease Resistance in Poultry	Central Veterinary Institute, Lelystad, The NETHERLANDS
1990	The Major Histocompatibility Complex, Immunogenetics, and Disease Resistance in Poultry	Institute for Small Animal Research, Celle, GERMANY
1990	Poultry Research at Iowa State University	Spelderholt, The NETHERLANDS
1990	Poultry Immunogenetics	Wageningen University, Department of Animal Husbandry, The NETHERLANDS
1990	Association of Production Traits with the Chicken MHC	International Conference on Animal Genetics, East Lansing, MI
1989 *	Current Aspects of Immunity as Related to Genetics	National Meeting on Poultry Health and Condemns, Ocean City, Maryland
1988**	The Chicken Major Histocompatibility Complex in Disease Resistance and Poultry Breeding	American Dairy Science Association Meeting, Edmonton, Alberta, CANADA
1988 *	Immunogenetics, the Major Histocompatibility Complex, and Disease Resistance in Poultry	Western Poultry Disease Conference Biotechnology Workshop, Davis, California
1988	Poultry Immunogenetics	Wageningen University, Department of Animal Husbandry, The NETHERLANDS
1988	Poultry Immunogenetics	Spelderholt Poultry Research Center, Beekbergen, The NETHERLANDS
1987 *	Classical and New Technologies for Analysis of the Chicken Major Histocompatibility Complex Genes	National Breeders Roundtable, St. Louis, Missouri

1987 *	Analysis of the Chicken Major Histocompatibility Complex	British Poultry Breeders Roundtable, Edinburgh, SCOTLAND
1987	Analysis of the Chicken Major Histocompatibility Complex	University of Guelph, Department of Animal and Poultry Science, Guelph, Ontario, CANADA
1986**	New Technologies and the MHC	Immunology Symposium, Annual Poultry Science Association Meeting, Raleigh, North Carolina
1986 *	Regulation by Genetic Engineering of Proteins Affecting Animal Health	Food Animal Research Symposium, Lexington, Kentucky
1986	The Avian MHC	USDA Regional Poultry Research Lab, East Lansing, Michigan
1985	Major Histocompatibility Complex Associations with Immune Response and Disease Resistance	Wageningen University Department of Animal Husbandry, The NETHERLANDS
1985	New Technologies in Genetic Resistance to Disease	Wageningen University, Department of Animal Husbandry, The NETHERLANDS
1985	Monoclonal Antibodies Directed Against Chicken Erythrocyte and Lymphocyte Surface Molecules	Avian Immunology Workshop, Innsbruck, AUSTRIA
1985	Chicken MHC Associations with Immune Response and Disease Resistance	Avian Immunology Workshop, Innsbruck, AUSTRIA
1985	Major Histocompatibility Complex in Chickens	Station for Quantitative and Applied Genetics, INRA, Jouy-en-Josas, FRANCE
1985	Poultry Immunogenetics	University of Massachusetts, Department of Veterinary and Animal Sciences
1985	Poultry Immunogenetics: Conventional and New Technologies for Analysis of the Major Histocompatibility Complex	University of New Hampshire, Department of Animal Science
1984	Effect of Genetic Selection on Immune Response	University of Wisconsin, Poultry Science Department
1984	The B Complex	NC-103 Swine Breeding Technical Committee
1984	Genetic Engineering	Iowa Poultry Association Fall Festival
1984	The Chicken Major Histocompatibility Complex	University of Minnesota, Animal Science Department

\*Resulted in multi-page paper in meeting proceedings.

\*\*Resulted in peer-reviewed journal paper or book chapter.

+Resulted in video tape lecture deposited in ISU library, used as class resource.

## XII. PUBLICATIONS

### REFEREED JOURNAL PAPERS:

- Del Vesco, A.P., Kaiser, M.G., Monson, M.S., Zhou, H., Lamont, S.J.. 2020. Genetic responses of inbred chicken lines illustrate importance of eIF2 family and immune-related genes in resistance to Newcastle disease virus. *Scientific Reports*. 10:6155. <https://doi.org/10.1038/s41598-020-63074-9>
- Deist, M.S., Gallardo, R.A., Dekkers, J.C.M., Zhou, H. Lamont, S.J. 2020. Novel combined tissue transcriptome analysis after lentogenic Newcastle disease virus challenge in inbred chicken lines of differential resistance. *Frontiers Genet*. 11:11. doi: 10.3389/fgene.2020.00011
- Alber, A., Morris, K.M., Bryson, K.J., Sutton, K., Monson, M.S., Chintoan-Uta, C., Borowska, D., Lamont, S.J., Schouler, C., Kaiser, P., Stevens, M., Vervelde, L. 2020. Avian pathogenic *Escherichia coli* (APEC) strain-dependent immunomodulation of respiratory granulocytes and mononuclear phagocytes in CSF1R-reporter transgenic chickens. *Frontiers Immunol*. doi: 10.3389/fimmu.2019.03055
- Adentunji, M., Lamont, S.J., Abasht, B.A., and Schmidt, C. J. 2019. Variant analysis pipeline for accurate detection of genomic variants from transcriptome sequencing data. *PLOS ONE* 14(9): e0216838. [doi.org/10.1371/journal.pone.0216838](https://doi.org/10.1371/journal.pone.0216838)
- Monson, M.S., Van Goor, A.G., Persia, M.E., Rothschild, M. F., Schmidt, C.J., Lamont, S.J. 2019. Genetic lines respond uniquely within the chicken thymic transcriptome to acute heat stress and low dose lipopolysaccharide. *Scientific Reports* 9:13649 [doi.org/10.1038/s41598-019-50051-0](https://doi.org/10.1038/s41598-019-50051-0)
- Barrett, N.W., Schmidt, C.J., Lamont, S.J., Ashwell, C.M., Persia, M.E. 2019. Effects of acute and chronic heat stress on the performance, egg quality, body temperature and blood gas parameters of laying hens. *Poultry Science*. <http://dx.doi.org/10.3382/ps/pez541>
- Walugembe, M. Mushi, J., Amuzu-Aweh, E., Chiwanga, G., Msoffe, P., Wang, Y., Saelao, P., Kelly, T., Gallardo, R., Zhou, H., Lamont, S., Muhairwa, A., Dekkers, J. 2019. Genetic analyses of Tanzania local chicken ecotypes challenged with Newcastle disease virus. *Genes* 10, 546; [doi:10.3390/genes10070546](https://doi.org/10.3390/genes10070546)
- Schilling, M., Memari, S., Cavanaugh, M., Katani, R., Deist, M.S., Radzio-Basu, J., Lamont, S.J., Buza, J.J., and Kapur, V. 2019. Conserved, breed-dependent, and subline-dependent innate immune responses of Fayoumi and Leghorn chicken embryos to NDV infection. *Scientific Reports* 9:7209 [doi.org/10.1038/s41598-019-43483-1](https://doi.org/10.1038/s41598-019-43483-1)
- Rowland, K., Ashwell, C.M. Persia, M.P., Rothschild, M.F., Schmidt, C., Lamont, S.J. 2019. Genetic analysis of production, physiologic, and egg quality traits in heat-challenged commercial white egg-laying hens using 600k SNP array data. *Genetics Selection Evolution* 51:31 [doi.org/10.1186/s12711-019-0474-6](https://doi.org/10.1186/s12711-019-0474-6)
- Elbeltagy, A.R., Bertolini, F., Fleming, D.S., Van Goor, A., Ashwell, C.M., Schmidt, C.J., Kugonza, D., Lamont, S.J., Rothschild, M.F. 2019. Natural selection footprints among African chicken breeds and village ecotypes. *Front. Genet*. 10:376. doi: 10.3389/fgene.2019.00376
- Rowland, K., Persia, M., Rothschild, M., Schmidt, C., Lamont, S. 2019. Blood gas and chemistry components are moderately heritable in commercial white egg-laying hens under acute or chronic heat exposure. *Poultry Science* 0:1–5 <http://dx.doi.org/10.3382/ps/pez204>
- Saelao, P., Wang, Y., Chanthavixay, G., Gallardo, R.A., Wolc, A., Dekkers, J.C.M., Lamont, S.J., and Zhou, H. 2019. Genetics and genomic regions affecting response to Newcastle disease virus infection under heat stress in layer chickens. *Genes* 10(1), 61; <https://doi.org/10.3390/genes10010061>
- Walugembe, M., Bertolini, F., Dematawewa, C.M.B., Reis, M.P., Elbeltagy, A.R., Schmidt, C.J., Lamont, S.J., and Rothschild, M.F. 2019. Detection of selection signatures among Brazilian, Sri Lankan, and Egyptian chicken populations under different environmental conditions. *Front. Genet*. doi: 10.3389/fgene.2018.00737
- Zhuo, Z., Lamont, S., Abasht, B. 2019. RNA-Seq analyses identify additivity as the predominant gene expression pattern in F1 chicken embryonic brain and liver. *Genes* 10, 27; [doi:10.3390/genes10010027](https://doi.org/10.3390/genes10010027)

Zhang, J. Schmidt, C. and Lamont, S.J. 2018. Distinct genes and pathways associated with transcriptome differences in early cardiac development between fast- and slow-growing broilers. PLOS ONE 13(12): e0207715. <https://doi.org/10.1371/journal.pone.0207715>

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