

CURRICULUM VITAE

Revised August 1, 2013

LISA KAY NOLAN

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CURRENT POSITIONS

Professor and Dr. Stephen G. Juelsgaard Dean, College of Veterinary Medicine (CVM), Iowa State University (ISU), Ames, Iowa, January 2011-

PREVIOUS ACADEMIC POSITIONS

Associate Dean of Research and Graduate Studies, CVM, ISU, Ames, Iowa, 2009-2011
Associate Dean of Academic and Student Affairs, CVM, ISU, Ames, Iowa, 2007-2009
Chair, Dept of Veterinary Microbiology & Preventive Medicine (VMPPM); CVM, ISU, 2003-2008
Executive Chair, CVM, Iowa State University (ISU), Ames, Iowa, 2006-2007
Interim Chair, Dept of Veterinary Diagnostic and Production Animal Medicine, CVM, ISU, 2004-2005
Founding Director, Great Plains Institute of Food Safety, NDSU, 1999-2003
Professor, VMS; Walter F. and Verna Gehrts Presidential Professor (2001-2003); Member, Cellular and Molecular Biology Faculty; Member, Nutritional and Physiology Graduate Faculty; Member, Graduate Faculty; NDSU, Fargo, ND; initial employment in September 1992; tenure obtained in 1998; and Professorial rank obtained in 2003

EDUCATION

D.V.M., University of Georgia (UGA), Athens, GA, -- (b)(6)--
M.S., Medical Microbiology, UGA, Athens, GA, -- (b)(6)--
Ph.D., Medical Microbiology, UGA, Athens, GA, -- (b)(6)--

ACADEMIC AWARDS

Marjorie Carter Memorial Award in Biology, Valdosta State College, 1975
Outstanding Junior Veterinary Student, UGA, 1987
Salsbury Scholar, UGA, 1987
Who's Who in Veterinary Science and Medicine, UGA, 1988
Phi Zeta Veterinary Honor Society, UGA, 1988 and ISU, 2012
Large Animal Clinical Proficiency Award, UGA, 1988
Graduate Assistant Merit Supplement, UGA, 1989, 1990, 1991
University of Georgia Research Foundation Tuition Scholarship, UGA, 1988-1989
Best Student Presentation, Southern CRWAD (Microbiology Section), 1989
Gamma Sigma Delta Honor Society, UGA, 1990
Blue Key National Honor Society, UGA, 1991
Travel Award to AVMA Convention, AAAP (Avian Medicine Section), 1991-2006
Best Research Paper, Phi Zeta College-Wide Competition, UGA, 1992
Sigma Xi, 1993
Selectee, Bison Ambassadors' Apple Polisher Event, NDSU, 1995, 1997, 2001
Preferred AG Instructor, College of Agriculture (CoA), NDSU, 1995
Mortar Board Preferred Professor, NDSU, 1996, 1997, 1998, 1999
Commendation, CoA Excellence in Teaching, Early Career, NDSU, 1996
Who's Who Among America's Teachers, 1998, 2000, 2002, 2005
Honorary Member, Golden Key National Honor Society, NDSU, 1998
Member, Phi Kappa Phi, 1998-
Mary McCannel Gunkelman 10th Annual Recognition Award, NDSU, 1998
University-Wide Odney Teaching Award, NDSU, 1999
Outstanding Academic Advisor, Mortar Board National Honor Society, NDSU, 1999
Distinguished Educator, Blue Key National Honor Society, NDSU, 2001
Professorship, Walter F. and Verna Gehrts Presidential Professor, NDSU, 2001-2003
Paper recognized in Journal Highlights in ASM's *Microbe*, September 2010
Featured lab in Research Media's *Journal of International Innovation*, May 2013
Featured lab on the AVMA website highlighting veterinarians' contributions to public health, 2013-

TEACHING/TEACHING-RELATED WORK EXPERIENCE

Instructor, Introductory Biology, Valdosta State College, 1980
Teacher, Science and Computer Skills, Athens Academy, Athens, GA, 1983-1984
University Tutor, Veterinary Histology, Physiology, and Parasitology, UGA, 1984-1986
Research Assistant, Medical Bacteriology (with Dr. R. E. Wooley), UGA, 1985-1992
Instructor, Introductory Biology I and II, Human Anatomy and Physiology I and II, and associated laboratories, Truett-McConnell College, Watkinsville, GA, 1983-1992
Pre-Veterinary and Microbiology Advisor (10 to 50 or more advisees at a time), NDSU, 1993-2003
Instructor, Pathogenic Microbiology, NDSU, 1994-2003
Instructor, Pathogenic Microbiology, Graduate Level (MICR 660), NDSU, 1997-2003
Instructor, Clinical Parasitology Laboratory, NDSU, 1995, 1996
Instructor, Medical Mycology Seminar Series, NDSU, 1998

Lecturer/Assistant Instructor, Introductory Microbiology, General Microbiology, General Microbiology Laboratory, Immunology, Weighing the Evidence (Honors), Introduction to Veterinary Sciences, Introduction to Agriculture, Terrorism, Microbiology Capstone, and Journal Club courses, NDSU, 1992-2003; Zoonoses, ISU, 2006-
Instructor, Etiology of Foodborne Illness, NDSU, 2000-2002
Author, Successful Request to Establish a Minor in Food Safety and the Great Plains Institute of Food Safety, NDSU, 2000
Author, Successful Request to Establish a Grad Certificate in Food Protection, NDSU, 2000
Instructor, Economic, Epidemiologic, and Regulatory Issues in Food Safety, NDSU, 2001-2002
Author, Successful Request for Establishment of B.S., M.S., and Ph.D. Programs in Food Safety, including several new courses proposals, NDSU, 2002
Instructor, Advanced Pathogenic Bacteriology, NDSU, 2002
Co-Instructor, Graduate-Level Pathogenic Bacteriology, ISU, 2004-2007

ADMINISTRATIVE SERVICE/ADVISORY BOARD EXPERIENCE

North Dakota Rep, Veterinary Medicine Advisory Council, WICHE, 1996-1998
Member, Advisory Board for Expanding Your Horizons, NDSU, 1997-2003
Member, Women's Studies Advisory Board, NDSU, 1999-2002
Member, Wellness Center Advisory Board, NDSU, 2001-2003
Member, North Dakota EPSCoR Steering Committee, 2001-2002
Member, Center for Advanced Technology Transfer Advisory Board, NDSU, 2002-2003
Member, FDA-CVM's Veterinary Medicine Advisory Committee, 2003-2006
Primary author, VMPPM Self-Study, 2005
Facilitator, CVM Faculty Evaluation of Nebraska 2 + 2 Proposal, ISU, 2005-2006
Member, President's Budget Advisory Board, ISU, 2006-2007
Member, CVM Dean's Budget Advisory Board, ISU, 2006-2010
Member, Vice Provost for Research Department Chairs' Advisory Board, ISU, 2007-2008
Ex officio Member, Foundation Board of Directors, IVMA, 2007-
Member, University Chairs Cabinet, ISU, 2007
Member, University's Research Computing Council, ISU, 2007-
Member, Entrepreneurship Supervisory Committee, ISU, 2007-
Member, North Central Advisory Committee, Animal Health, 2008-
Member, NC_TEMP1019, Emerging & Re-emerging Poultry Respiratory Disease, 2008-2009
Member, *Avian Diseases* Advisory Board, 2008-
Member, Dean's Advisory Board for the College of Public Health, University of Iowa, 2011-
President, Board of ISU-VCS (a Des Moines Emergency/Specialty Veterinary Clinic), 2011-
Leadership Chair, United Way Campaign, ISU, 2012-2013
Member, Board of the Blank Park Zoo Foundation, Des Moines, Iowa, 2012-
Chair, United Way Campaign, ISU, 2013-
Secretary, American Association of Veterinary Medical Colleges, 2012-

OTHER SERVICE

President, Professional Veterinary Class of 1988, VM2-4 years, CVM, UGA, 1985-1988
Member, Faculty-Student Liaison Committee, UGA, CVM, 1985-1988

Member, Josiah Meigs Teaching Awards Committee, UGA, 1989
Instructor, Expanding Your Horizons, NDSU, 1992, 1995, 1996
Member, CoA Scholarship Committee, NDSU, 1992-2002
Member, University Board of Appeals, NDSU, 1993-1996
Member, CoA Recruitment Committee, NDSU, 1992-2002
External Reviewer, Promotion/Tenure Evaluation, Departments of Large Animal Medicine, Medical Microbiology, Anatomy and Radiology, and Avian Medicine, UGA, 1992, 1993, 1995, 2000 and 2005, respectively; Animal Science, BYU, 1995; Microbiology, CVM, CSU, 2000; Veterinary and Microbiological Sciences, NDSU, 2004, 2005; Veterinary Microbiology, CVM, Auburn University, 2004; Virginia-Maryland Regional CVM, 2006
Member, Graduate Curriculum Committee, VMS, NDSU, 1992-2003
Member, Undergraduate Curriculum Committee, VMS, NDSU, 1992-2001
Advisor, Sigma Alpha Fraternity, NDSU, 1992-1993
Auxiliary Advisor, Pre-Veterinary Club, NDSU, 1992-1996
Moderator, AVMA Convention (Avian Medicine Section), 1993
Moderator, AAVLD Convention (Plenary Session), 1993
Chair, VMS Departmental Goals Committee, NDSU, 1993
Member, VMS Departmental Scholarship Committee, NDSU, 1994-2000
Member, Steinhaus-Rhinehart Scholarship Committee, NDSU, 1994-2002
Interviewer, Resp Rx & Clinical Lab Sci Mock Interviews, NDSU, 1993-1994, 1996-1998, 2000
Member, Search Committee for the Experiment Station Director, NDSU, 1994 (Bob Todd hired)
Member, CoA Committee to Improve Advising, NDSU, 1994-1998
Chair, Training Subcommittee of CoA Committee to Improve Advising, NDSU, 1995
Originator and Organizer, "Hot Zone Party," NDSU, 1995, 1996, 1997, 1998, 2000
Member, Search Committee for Pathogenic Microbiologist, NDSU, 1995 (Dave White hired)
Member, Search Committee for Information Specialist, NDSU, 1995 (Tom Jirik hired)
Member, Institutional Animal Care and Use Committee, NDSU, 1995-2000
Advisor, NDSU Rifle and Pistol Team, NDSU, 1996-1999
Member, Search Committees for VP of Agricultural Affairs, NDSU, 1996, 1997 (Pat Jensen hired)
Member, Search Committee for VMS Pathogenic Microbiologist, NDSU, 1996 (Lynn Rust hired)
Judge, Bison Brevs, Blue Key Honor Society, NDSU, 1997, 2000
Member, Search Committee for the Expt Station Dir, NDSU, 1997-1998 (Cole Gustafson hired)
Mentor, New Faculty Mentor Program, NDSU, 1997-1998
Chair, Board of Directors, North Dakota Science Research Foundation, 1997-1999
Advisor, Golden Key Honor Society, NDSU, 1997-2000
Member, Search Committee for Dir of Multicultural Services, NDSU, 1998 (Paul Boswell hired)
Chair, VMS Departmental Scholarship Committee, NDSU, 1998-2000
Chair, Search Committee for VMS Food-Safety Microbiol, NDSU, 1998-1999 (Cathy Logue hired)
Chair, Search Committee for VMS Postdoctoral Associate, NDSU, 1998 (Shelley Horne hired)
Participant, Summer Institute for Young Women, University of Minnesota-Crookston, 1998
Panel Participant, Imp of Math, NSA-Sponsored Workshop for Young Women, NDSU, 1998, 1999
Member, Committee on the CoA's Mission, NDSU, 1998-1999
Member, Search Committee for Pathogenic Microbiol, VMS, NDSU, 1999 (search was terminated)
Member, Fundamental Research Committee, National Alliance for Food Safety, 1999

Moderator, Food and Environ. Safety Session/Bact Pathogenesis Session, CRWAD, Chicago, IL, 1999
Member, Search Committee for Chair of the old VMS, NDSU, 1999-2000
Member, Teaching Awards Committee, College of Business, NDSU, 1999
Member, Teaching Awards Committee, CoA, NDSU, 2000
Chair, CoA's Scholarship Committee, NDSU, 2000-2002
Member, CoA, Selection Committee for Presidential Doctoral Fellowships, NDSU, 2001
Member, Search Committee for Chair of VMS, NDSU, 2001 (Doug Freeman hired)
President-elect, Phi Kappa Phi, NDSU, 2001-2002 and President, 2002-2003
Member, Search Committee for VMS Lecturers, NDSU, 2001 (Jess Ebert and Tom Gustad hired)
Member, Search Committee for VMS Technician, NDSU, 2001 (Scott Hoselton hired)
Chair, Search Committee for the Epi Position, VMS, NDSU, 2002 (Margaret Khaita hired)
Member, Search Committee for Infect Dis position, VMS, NDSU, 2002 (Penny Gibbs hired)
Member, Consensus Committee for Animal Health, ND, SD, MN, & Manitoba, 2002-2003
Chair, Search Committee for Food Safety Post-Doctoral Fellows, NDSU, 2002
Member, *Ad hoc* Committee on the Future of the Cereal and Food Sciences, NDSU, 2002
Member, Conference Organizing Committee, Bioterrorism and Food Security: Issues and Challenges
Conference, Fargo, ND, 2002
Member, Search Committee for Dir of the Institute for Food Safety, ISU, Ames, IA, 2003-2004
Chair, Cabinet Committee to Evaluate CVM Restructuring, 2004
Panel Member, USDA-Center for Veterinary Biologics, 2004
Moderator, North Central Avian Disease Conference, Ames, Iowa, 2004
Moderator, CRWAD, Chicago, IL, 2004
Member, Organizing Committee for the 4th Int Symp on Virulence Mechanisms of Bacterial
Pathogens, 2005-2006
Member, Search Committee for Program Coordinator, CVM, ISU, 2005 (Tom Ligouri hired)
Facilitator, Budget Subcommittee, Planning and Performance Committee, CVM, ISU, 2007-
Panel member, Veterinary Summer Scholars Researcher Panel, ISU CVM, 8/07
Department Reviewer, Department of Veterinary Science, University of Arizona, 9/07
Panel member, "Getting-to-Know NSF" Grantsmanship Workshop, ISU, 9/07
Chair, Search Committee for Chair of the Department of Veterinary Clinical Sciences, ISU, 3/08-
Member, Veterinary Medical Center, Phase II Building Planning Committee, 2008-
Member, Search Committee for Dir of OSPA, ISU, 2009-
Member, Search Committee for Dir of the Nutrition and Wellness Research Center, ISU, 2009-
Co-chair, One Health Medicine Symposium/Initiative Organizing Committee, ISU, 2009-
Member, Committee to Review the Status of Women in the CVM, ISU, 2010-
Panelist, Women in Natural Resources Professional Development Workshop, ISU, 2010
Member, Committee to Assess Needs Related to ISU's Increasing and Diversified Grant and
Contract Portfolio Member, Iowa State University in 2050, Strategic Planning Committee, 2010
Chair, Search Committee for ADASA, ISU CVM, 2010 (Claire Andreasen hired)
Member, Ethics Committee, American Association of Veterinary Colleges, 2012-
AAVMC Secretary for 2013-2014, 2013-

EDITORIAL/REVIEWER/SCIENTIFIC PROGRAMMING EXPERIENCE

Reviewer, Graduate Research Enhancement Awards Program, NDSU, 1992, 1993

Reviewer, Louisiana Education Quality Support Fund, 1992
Ad hoc Reviewer, USDA NRICG Program, 1993, 1994, 2000, 2001, 2002
Member, Board of Scientific Reviewers, *American Journal of Veterinary Research*, 1994-1996
Member, USDA Challenge Grants Review Panel, USDA-HEP Program, Washington, D.C., 1998
Member, Program Committee, National Alliance for Food Safety, 1st Ann Meeting, D.C., 1999
Chair, Food and Environmental Safety Session, CRWAD, Chicago, IL, 1999, 2000
Co-Chair, Food & Environ Safety Session, CRWAD, Chicago, IL, 2001; Moderator, 1999-2003
Member, Editorial Review Board, *Animal Health Research Reviews*, 1999-2000
Member, FDA Food Animal Grants Review Panel (Microbiological Hazards Associated with the Food Animal Production Environment), CVM-FDA, Rockville, MD, 2000
Section Editor, Food and Environmental Safety, *Animal Health Research Reviews*, 2000-2005
Ad hoc Reviewer, *American Journal of Veterinary Research*, 1999, 2000, 2003, 2009; *Applied and Environmental Microbiology*, 2008; *Avian Diseases*, 2004-2010; *Avian Pathology*, 2003, 2005, 2007, 2008, 2011; *BMC Genomics*, 2007, 2008; *British Journal of Poultry Research*, 2011; *Clinical Infectious Diseases*, 2013; *European Journal of Clinical Microbiology and Infectious Diseases*, 2008, 2009; *Electronic Journal of Biotechnology*, 2008; *European Journal of Clinical Microbiology & Infectious Disease*, 2009; *FEMS Microbiology Letters*, 2005; *Food and Chemical Toxicology*, 2007; *Infection and Immunity*, 2007, 2008, 2010, 2011; *Journal of American Veterinary Medical Association*, 1994, 1995, 1997, 1998, 2001; *Journal of Antimicrobial Chemotherapy*, 2006, 2009; *Journal of Applied Communication Research*, 2007; *Journal of Bacteriology*, 2006; *Journal of Medical Microbiology*, 2007; *Nature Communications*, 2011; *Veterinary Research Communications*, 1997, 1999, 2000, 2001; *Letters in Applied Microbiology*, 2006; *Microbial Ecology*, 2007; *Microbes and Infection*, 2003, 2004; *Microbiology*, 2003, 2009; *Microbial Pathogenesis*, 2008; *Plant Disease*, 1996, 1997; *Process Biochemistry*, 2006; *Plasmid*, 2007; *PLoS Genetics*, 2013; *PLoS One*, 2013; *Veterinarni Medicina (Czech)*, 2008; *Veterinary Microbiology*, 2008; *Veterinary Research*, 2004; *Virulence*, 2012; *Zoonoses & Public Health*, 2007
Member, Editorial Review Board, *Avian Diseases*, 2004-
Associate Editor, *Diseases of Poultry*, 12th edition, 2005-2008
Scientific Reviewer, SCOR Grants on Sex & Gender Factors Affecting Women's Health, NIH, 2007
Scientific Reviewer, UK's BBSRC Combating Endemic Diseases of Farmed Animals Grants, 2007
Co-Editor, *Virulence Mechanisms of Bacterial Pathogens*, 4th edition, ASM Press, 2007-
Scientific Reviewer, BARD US-Israel Grants Program, 2007
Scientific Reviewer, Keck Preproposals, Iowa State University, 2008
Scientific Reviewer, UK's BBSRC Agri-Food Grants Program, 2008
Associate Editor, *Diseases of Poultry*, 13th edition, 2008-2013
Panel Member, Challenge Grants: Genes, Genomes and Genetics Program, NIH, 2009
Panel Member, USDA-AFRI Functional Genomics Grant Panel, July 2009
Panel Member, Program Grants through NIH NIDDK, July 2010
Scientific Reviewer, UK's BBSRC Animal Systems, Health & Welfare Grants Program, 2010, 2013
Scientific Reviewer, Professorship in Preventive Veterinary Microbiology, University of Copenhagen, 2011
External Dissertation Reviewer, University College Dublin, Belfield, Ireland, 2011
Reviewer, Canada Research Chair Nomination, 2011, 2012-2013
External Dissertation Advisor, The University of Queensland, Brisbane St. Lucia, Australia, 2012

External Scientific Reviewer, Austrian Science Fund, Austrian Doctoral Program, 2012
Scientific Reviewer, SCOR Grants on Sex Differences, NIH, 2012
Member of Site Visit Team, Austrian Science Fund, 2012
Member, Editorial Board of the *Iranian Journal of Veterinary Research*, 2013-

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Veterinary Medical Association (AVMA), 1984-
American Association of Avian Pathologists (AAAP), 1991-
American Society for Microbiology (ASM), 1992-
Conference of Research Workers in Animal Disease (CRWAD), 1993-
Iowa Veterinary Medical Association (IVMA), 2007-

POSTDOCTORAL DIRECTION

-- (b)(6)--

GRADUATE STUDENT DIRECTION

-- (b)(6)--

UNDERGRADUATE/PROFESSIONAL STUDENT RESEARCH DIRECTION

-- (b)(6)--

VISITING SCIENTISTS

-- (b)(6)--

GRANTS/SUBCONTRACTS/OTHER FUNDS

PI, *Salmonella* Carriage in ND Cattle. NDSU Grant-in-Aid Program, 2/93-1/94, -- (b)(6)--
PI, APEC Complement Resistance. USDA NRICGP, 8/94-7/96, -- (b)(6)--
PI, Detection of APEC. Southeastern Poultry and Egg Association, 8/95-9/96, -- (b)(6)--
Co-PI, Advising Initiatives for Females in Agriculture. NDSU-PPRC, 6/95-7/96, -- (b)(6)--
Co-PI, *fkpA* & Intracellular Survival of *Salmonella*. Animal Health Money, NDSU, 1/95-6/95, -- (b)(6)--
PI, Automated DNA Sequencer for Pathogenic Bacteriology Research. USDA NRICGP-Equipment Grant, 8/95, -- (b)(6)-- 0 (match of -- (b)(6)-- obtained from various sources)
Co-PI, *Strep suis* as a Multisystem Pathogen in ND Swine. ND Pork Producers, 8/96-7/97, -- (b)(6)--
Co-PI, FK506 Binding Proteins in *Salmonella*. USDA-NRICGP, 10/96-9/98, -- (b)(6)--
Co-PI, *Escherichia coli* of Septicemic Mink. Mink Fur Producers Foundation, 1/97-12/98, -- (b)(6)--
Co-PI, Remote Inspection Biological Sensor Development. Technology Transfer Incorporated and Northern Plains Premium Beef, 12/96-11/97, -- (b)(6)--
Director, Scholarships for Native Americans in Vet & Food Sci. USDA-HEP, 8/97-7/02, -- (b)(6)-- 0
PI, Flow Cytometer for Animal Health Research. USDA NRICGP-Equipment Grant, 10/97-9/98, -- (b)(6)-- (match of -- (b)(6)-- obtained from various sources)
Project Director, Fellowships to Promote Expertise in Infectious Disease of Animals. USDA-National Need Graduate Fellowship Program, 11/97-8/01, -- (b)(6)--
PI, Facilitating Colibacillosis Control. NDSU Research Foundation, 12/97-6/98, -- (b)(6)--
PI, MacIntosh-Based DNA/Protein Analysis Software. ND EPSCoR, 3/98-6/98, -- (b)(6)-- Co-PI, *Escherichia coli* Isolates from Septicemic Ranch Mink. Mink Furbearers Producers Foundation, 7/98-6/00, -- (b)(6)--

Co-PI, Computer Cluster to Enhance the VMS Teaching, NDSU Technology Fund, 7/98-6/99, -- (b)(6)--

PI, *Escherichia coli* Iss Protein. NIH-EPSCoR IDeA Seed Grant Program, 5/98-9/98, -- (b)(6)--

Co-PI, PPIases in the Intracellular Survival of *Salmonella*. USDA-NRICGP, 9/98-8/99, -- (b)(6)--

Co-PI, Integrons Among Swine *Salmonella*. National Pork Producers Council, 10/98-9/99, -- (b)(6)--

PI, CNF-1 as a Potential Control Target for *E. coli*-Caused Calf Scours. ND Gas Tax Fund and State Board of Agricultural Research, 1/99-12/99, -- (b)(6)--

PI, Serologic Identification of *Salmonella typhimurium* DT104. NDSU Research Development Support Program, 12/98-11/99, -- (b)(6)--

PI, Small Equipment Award for Upgrade of the LI-COR Automated DNA Sequencing System. ND EPSCoR, 10/99 (\$-- (b)(6)-- with match)

Co-PI, NDSU Faculty Development Committee Instructional Development Grant (Purchase of Double-Headed Microscope). NDSU Foundation, 1/99-12/99, -- (b)(6)--

PI, Start-up Funds for the Food Safety Faculty Position in VMS. ND EPSCoR, 1/99-12/99, -- (b)(6)-- (match of -- (b)(6)-- obtained from various sources)

PI, Filling the Food Safety Expertise Gap: The Great Plains Summer Institute. USDA-HEP, 10/99-9/02, -- (b)(6)-- -- (b)(6)-- with match)

PI, CNF-1 as a Potential Control Target for *E. coli*-caused Calf Scours. ND-Gas Tax Fund and State Board of Agricultural Research and Education, 1/00-12/00, -- (b)(6)--

PI, Fellowships to Promote Expertise in Infectious Disease of Animals. USDA-HEP National Need Fellowships Grant Program, 11/99-8/03, -- (b)(6)--

PI, Antibodies to Iss for Study of APEC. NIH-AREA Program, 7/00-6/03, -- (b)(6)--

Co-PI, PFGE to Enhance Study of Animal Pathogens. USDA NRICGP Grant, 10/00-9/01, -- (b)(6)--

Co-PI, CNF-1 as a Potential Control Target for Mink Colibacillosis. Mink Furbearers, Producers Foundation, 7/00-6/01, \$-- (b)(6)--

Co-PI, Spectrophotometer for Path Bacteriol Res. ND-EPSCoR, 8/00, -- (b)(6)-- -- (b)(6)-- with match)

Co-PI, Thermocycler for Pathogenic Bacteriology Research. ND-EPSCoR, 12/00, -- (b)(6)--

Co-PI, Ultralow Freezer for Veterinary and Microbiological Sciences. ND-EPSCoR, 2/01, -- (b)(6)--

PI, CNF-1 as a Potential Control Target for *E. coli*-caused Calf Scours. ND-Gas Tax Fund and State Board of Agricultural Research and Education, 1/01-12/01, -- (b)(6)--

Co-PI, Intelligent Quality Sensors for Safe Food. USDA-Special Research Grant, 4/01-3/03, -- (b)(6)--

PI, Start-up Fund Supplement for Recruitment of the Chair of VMS. NSF-EPSCoR (IIP), 8/01-7/03, -- (b)(6)-- -- (b)(6)-- with match from various sources)

PI, Presidential Doctoral Graduate Fellowships for-- (b)(6)--, NDSU Graduate School, 6/01-5/04, -- (b)(6)--

PI, Doctoral Dissertation Assistantship for -- (b)(6)--, ND-EPSCoR, 7/02-7/03, -- (b)(6)--

PI, Novel Approaches to the Control of *E. coli*-Caused Calf Scours, SBARE-ARF, 1/02-12/02, -- (b)(6)--

Acting PI, Intelligent Quality Sensors for Food Safety: Further Development and Validation, USDA-CSREES Special Grants Program, 6/02-5/04, -- (b)(6)--

Co-PI, Food Safety Risk Assessment, USDA Special Grant, 5/02-4/04, -- (b)(6)--

PI, Validation of Sensors for Food Safety, USDA Special Grant (#2003-06091), 6/03-5/05, -- (b)(6)--

Co-PI, Food Safety Risk Assessment, USDA Special Grant (# 2003-06068), 5/03-4/05, -- (b)(6)--

Recipient, New Faculty Start-Up Funds, ISU's Provost's Office, Biotechnology Council, and CVM Dean's Office, 8/03-7/06, -- (b)(6)--

Author, Doctoral Dissertation Assistantship fo-- (b)(6)--, ND-EPSCoR, 3/04–7/05, -- (b)(6)--
 PI, APEC: A Major Cause of Human UTI? Roy J. Carver Charitable Trust, 5/04–3/07, -- (b)(6)--
 Co-PI, Iss Protein as a Vaccine Against Avian Colibacillosis, IHLAC, 6/05–5/06, -- (b)(6)--
 PI, Possible Emergence of a Plasmid-Mediated Reservoir of Resistance Genes among the
Escherichia coli of Poultry. The Alliance for the Prudent Use of Antibiotics, 1/05–12/05, -- (b)(6)--
 Co-PI, *E. coli* Peritonitis in Commercial Laying Hens. Iowa Egg Council, 4/05–3/06, -- (b)(6)--
 Co-PI, Fellowships to Promote Expertise in Animal Well-Being. USDA-HEP National Need
 Fellowships Grant Program, 9/05-8/08, -- (b)(6)--
 Co-PI, Plasmid-Mediated Virulence in APEC. HLICGP, 6/05-5/06, -- (b)(6)--
 Co-PI, Possible Emergence of Plasmid-Containing APEC Strains in Poultry, USDA Formula Funds
 Program, 12/05–11/06, -- (b)(6)--
 Co-PI, Vaccine to Protect Chickens from *Escherichia coli* Respiratory Tract Infection, USDA Formula
 Funds Program, 12/05–11/06, -- (b)(6)--
 Co-PI, Live Vaccine Against Avian Colibacillosis, US Poultry & Egg Association, 3/06-2/07, -- (b)(6)--
 Co-PI, Recombinant Iss Protein as a Vaccine Against Avian Colibacillosis. IHLAC, 6/06-5/07, -- (b)(6)--
 - Co-PI, Refining the Laying Hen Peritonitis Model, ISURF, 9/06–8/07, -- (b)(6)--
 PI, Enhancing the *E. coli* Plasmid Genome Database and the Tools for Its Effective Use. NSF, 10/06-
 9/08, -- (b)(6)--
 Co-PI, Development of a Plasmid Chip, USDA Formula Funds Program, 12/06–11/07, -- (b)(6)--
 Co-PI, Assaying APEC Virulence Using Nematodes. IHLAC, 6/07-5/08, -- (b)(6)--
 Co-PI, Sequence Analysis of *Gallibacterium anatis*, Midwest Poultry Consortium, 1/07–12/07, --
(b)(6)-- (Includes -- (b)(6)-- in match from the Iowa Egg Council)
 Co-PI, *Gallibacterium* Virulence in Chick Embryos. IHLAC, 6/07-5/08, -- (b)(6)--
 PI, Identification of Novel APEC Virulence Genes via Functional Genomics, Healthy Livestock
 Initiative, 7/07-6/08, -- (b)(6)--
 PD, Host: Pathogen Interactions in Avian Colibacillosis: a Systems-Based, Functional Genomics
 Approach, USDA NRICGP, 1/08-12/12, -- (b)(6)--
 Co-PI, Identification of Novel APEC Virulence Genes Via Functional Genomics, USDA Formula Funds,
 1/08-12/09, -- (b)(6)--
 Co-PI, Characterization of Three Putative Autotransporters of Avian Pathogenic *E. coli* and their
 Potential Use as Vaccines Against Laying Hen Peritonitis, IHLAC, 7/1/08-6/30/11, -- (b)(6)--
 PI, Genomic Toolbox for Studying APEC Pathogenesis, Evolution, Control, and Host Specificity,
 USDA NRI, 9/15/08-10/31/12, -- (b)(6)--
 Co-PI, Identification and Characterization of Novel Virulence Factors of Neonatal Meningitis
 Associated *E. coli* via Proteomic Analysis, ICAN, 4/15/09 – 6/30/11, -- (b)(6)--
 Co-PI, APEC Vaccine, CAHDIT, 4/11-3/12, -- (b)(6)--
 Co-PI, RNA Sequencing of ExPEC, CIAG, 6/12/11-5/31/12, -- (b)(6)--
 PI, Impact of Poultry Practices on Emergence of Plasmid-Bearing *E. coli* In Poultry and Retail
 Poultry, ILHAC, 6/1/12-6/30/14, -- (b)(6)--
 PI, Phylogeny, Structure and Virulence Contributions of NMEC's Virulence Plasmids, NIH R21,
 10/1/12 – 9/31/14, -- (b)(6)--
 PI, Impact of Poultry Production and Processing Practices on Emergence of Plasmid-Bearing
Escherichia coli and *Salmonella* spp. on Retail Poultry Meat, ISU Health Research Initiative, 10/5/12-
 6/30/13, -- (b)(6)--

PATENTS/PATENT APPLICATIONS

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MANUSCRIPTS UNDER REVIEW/IN PREPARATION

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INVITED PUBLICATIONS/BOOK CHAPTERS

1. Nolan, L.K.[†], Horne, S.M., Giddings, C.W., and Foley, S.L. 2000. The Role of Serum Complement Resistance in the Virulence of Avian *Escherichia coli*. Invited paper for the XXI World's Poultry Congress, Montreal, Canada.
2. Lee, M.D., Nolan, L.K., and Arp, L.H. 2005. Colibacillosis, in: *Isolation and Identification of Avian Pathogens*, 5th edition, edited by John Glisson
3. Barnes, H.J., Nolan, L.K., and Vaillancourt, J.-P. 2008. Colibacillosis, in: *Diseases of Poultry*, 12th edition, edited by Y.M. Saif
4. Barnes, H.J. and Nolan, L.K. 2008. Miscellaneous and Sporadic Bacterial Infections, in: *Diseases of Poultry*, 12th edition, edited by Y.M. Saif
5. Johnson, T.J. and Nolan, L.K. 2009. Plasmid Replicon Typing, in: *Molecular Epidemiology of Microorganisms: Methods in Molecular Biology* series, edited by John Walker
6. Logue, C.M. and Nolan, L.K. 2009. Molecular Analysis of Pathogenic Bacteria and their Toxins, in: *Safety of Meat and Processed Meat*, edited by Fidel Toldra
7. Logue, C.M. and Nolan, L.K. 2012. Emerging Bacterial Foodborne Pathogens and Methods of Detection, in: *Food Biochemistry and Food Processing*, edited by Benjamin Simpson
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PUBLISHED ABSTRACTS/PROCEEDINGS OF MEETINGS

**under the mentorship of LK Nolan; † = also presented as a talk; ‡ = also presented as a poster*

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29. Pfaff, S.J.*[‡], Nolan, L.K., Smith, M.H., and Horne, S.M. Certain Virulence Sequences among Avian *Escherichia coli*. Proceedings of the AVMA/AAAP Annual Meeting, Louisville, KY, July 1996
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104. Johnson T.J.*† and Nolan, L.K. Modular Arrangement of a ColV Plasmid in an Avian *Escherichia coli* Isolate. Proceedings of the CRWAD Annual Meeting, Chicago, 2004 [**American College of Veterinary Microbiologists Best Student Presentation**]
105. Skyberg, J.A.*†, Logue, C.M., Doetkott, C., and Nolan, L.K. A Large APEC Plasmid Confers Lethality to Chick Embryos and Ability to Grow in Human Urine Upon an Avirulent *E. coli*. Proceedings of the CRWAD Annual Meeting, Chicago, 2004
106. Kariyawasam, S.*‡, Siek, K.E., and Nolan, L.K. Subtractive Hybridization to Detect Genomic Differences between APEC and Non-Pathogenic *E. coli*. Proceedings of the AVMA/AAAP Annual Meeting, Minneapolis, 2005
107. Nolan, L.K.†, Johnson, T.J., Siek, K.E., and Skyberg, J. Plasmids in APEC Virulence and Antimicrobial Resistance: An Overview. Proceedings of the AVMA/AAAP Annual Meeting, Minneapolis, 2005
108. Johnson, T.J.*‡, Siek, K.E., Johnson, S.J., and Nolan, L.K. Comparative Genomics and Distribution of an R Plasmid among Avian *Escherichia coli* Isolates. Proceedings of the AVMA/AAAP Annual Meeting, Minneapolis, 2005
109. Skyberg, J.*†, Siek, K.E., Doetkott, C., and Nolan, L.K. Biofilm Formation on Plastic Surfaces by *Escherichia coli* Isolated from Sick and Healthy Poultry. Proceedings of the AVMA/AAAP Annual Meeting, Minneapolis, 2005
110. Johnson, T.J., Siek, K.E., Johnson, S.J., and Nolan, L.K. Complete Sequence and Distribution of an APEC R Plasmid, pAPEC-O2-R. Proceedings of the ICAAC Annual Meeting, New Orleans, 2005 (Accepted with a **Travel Award** but declined with rescheduling following Hurricane Katrina)
111. Johnson, T.J.*† and Nolan, L.K. Plasmid Replicon Typing of Avian *E. coli*. Proceedings of the 57th North Central Avian Disease Conference, St. Paul, 2006
112. Johnson, T.J.*‡ and Nolan, L.K. APEC Pathogenicity Islands. Proceedings of ASM, Orlando, 2006
113. Kariyawasam, S.*‡, Johnson, T.J., and Nolan, L.K. Subtractive Hybridization to Identify Virulence Factors in APEC and UPEC. Proceedings of ASM, Orlando, 2006
114. Nolan, L.K.*‡, Johnson, T.J., and Wannemuehler, Y. Emergence of Virulent *Escherichia coli* Isolates in Poultry Production. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006
115. Johnson, T.J.*‡ and Nolan, L.K. Exploring the Evolution of APEC Plasmids through Comparative Genomics. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006
116. Johnson, S.J.*‡, Johnson, T.J., and Nolan, L.K. Distribution of Plasmids among APEC. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006
117. Lynne, A.M.*‡, Logue, C.M., and Nolan, L.K. Iss in APEC's Outer Membrane. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, 2006
118. Scaccianoce, J.A.*‡, Wannemuehler, Y.M., Johnson, T.J., and Nolan, L.K. Host Age and Virulence Capacity of APEC. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006
119. Kariyawasam, S.*‡, Johnson, T.J., and Nolan, L.K. Pathogenicity Islands in APEC. Proceedings of

the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006

120. Trampel, D.‡, Nolan, L.K., and Wannemuehler, Y. Characterization of *Escherichia coli* Isolates from Peritonitis. Proceedings of the AVMA-AAAP Annual Meeting, Honolulu, HI, 2006
121. Nolan, L.K. ‡, Johnson, T.J., and Skyberg, J.A. Plasmids in APEC Virulence and Antimicrobial Resistance. International Plasmid Biology Society, South Lake Tahoe, CA, 2006
122. Johnson, T.J. *‡ and Nolan, L.K. Comparative Genomics of APEC Plasmids. International Plasmid Biology Society, South Lake Tahoe, CA, 2006
123. Kariyawasam, S.*‡, Johnson, T.J., and Nolan, L.K. Role of *ireA* in APEC Virulence. Proceedings of the CRWAD Annual Meeting, Chicago, IL, 2006
124. Johnson, T.J. *‡ and Nolan, L.K. APEC Plasmid Project. Plant & Animal Genome Conference. San Diego, CA, 2007
125. Kariyawasam, S. *‡ and Nolan, L.K. Δtia Mutant of an APEC. Western Poultry Disease Conference, Las Vegas, NV, 2007
126. Kariyawasam, S. *‡ and Nolan, L.K. Δpap Mutant of APEC O1:K1:H7 is Attenuated *In Vivo*. Proceedings of ASM, Toronto, ON, 2007
127. Kariyawasam, S.*‡, Johnson, T.J., and Nolan, L.K. Extensive Analysis of Pathogenicity Island PAI1_{APEC O1} of APEC. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
128. Johnson, T.J.* ‡, Kariyawasam, S., Wannemuehler, Y., Mangiamele, P., Johnson, S.J., Doetkott, C., Skyberg, J.A., Lynne, A.M., and Nolan, L.K. Analysis of the Complete Genome of an APEC Isolate. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
129. Nolan, L.K. ‡, Johnson, T.J., Wannemuehler, Y., and Johnson, S. Widespread Occurrence of Plasmids in APEC. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
130. Wannemuehler, Y. * ‡, Johnson, T.J., Johnson, S., and Nolan, L.K. Rapid Procedure to Identify APEC. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
131. Trampel, D.T., Wannemuehler, Y., and Nolan, L.K. Peritonitis Caused by *Gallibacterium anatis* and APEC. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
132. Mangiamele, P. * ‡, Johnson, T.J., Wannemuehler, Y.M., and Nolan, L.K. Creation of an *E. coli* Plasmid Genome Database. Proceedings of the AVMA-AAAP Annual Meeting, Washington DC, 2007
133. Johnson, T.J.*†, Wannemuehler, Y.M., Kariyawasam, S., and Nolan, L.K. Transcriptome Analysis of an APEC ColV Virulence Plasmid during Systemic Colibacillosis Infection. CRWAD, 2007
134. Topp, E., Summers, A., and Nolan, L.K. † Diversity of Plasmids in Prokaryotes: Implications for Health and Environment. NSF/ CREES Microbial Genome Sequencing Program Awardees Meeting held in conjunction with Plant and Animal Genome Meeting XVII, San Diego, CA, 2008
135. Johnson, T.J.,† Wannemuehler, Y., and Nolan, L.K. Evolution of the *iss* Gene in *E. coli* and the Implications for Avian Health. North Central Avian Disease Conference, St. Paul, MN, 2008
136. Nolan, L.K. ‡, Johnson, T.J., Kariyawasam, S., Wannemuehler, Y., Li, G., Jordan, D.M., and Logue,

- C.M. pAPEC-408: An APEC R Plasmid Harboring a Pathogenicity Island. AVMA/AAAP Annual Meeting, New Orleans, 2008
132. Mangiamele, P. ‡, Johnson, T.J., Wannemuehler, Y.M., and Nolan, L.K. Creation of an *Escherichia coli* Genome Database. Proceedings of the AVMA-AAAP Annual Meeting, New Orleans, 2008
138. Li, G. ‡*, Kariyawasam, S., Wannemuehler, Y.M., and Nolan, L.K. *tkf* is Located on A Novel PAI Found Among APEC. AVMA/AAAP Annual Meeting, New Orleans, 2008
139. Wannemuehler, Y.M. ‡*, Johnson, T.J., and Nolan, L.K. APEC-Like Plasmids and Other Traits among Human ExPEC of Human. AVMA/AAAP Annual Meeting, New Orleans, 2008
140. Kariyawasam, S. ‡, Wannemuehler, Y., Hardy, J., Li, G., Johnson, T.J., and Nolan, L.K. *Caenorhabditis elegans* as a Simple Model to Study APEC Virulence. AVMA/AAAP Annual Meeting, New Orleans, 2008
141. Barnes, H.J. †, Martin, M.P., Nolan, L.K., Day, J.M., Wages, D.P., Ley, D.H., Rives, D.V. Day of Hatch Compared with Day After Hatch Placement of Turkey Poults. AVMA/AAAP Annual Meeting, New Orleans, 2008
142. Cookson, K. †, Nolan, L.K., and Gustafson, C. Characterization of APEC from Broilers using PCR Analysis of Key Virulence Genotypes. AVMA/AAAP Annual Meeting, New Orleans, 2008
143. Johnson, T.J. †, Nolan, L.K., Trampel, D.W., and Wannemuehler, Y.M. Genome Sequencing of *Gallibacterium anatis* Causing Peritonitis in Laying Hens. Proceedings of the AVMA/AAAP Annual Meeting, New Orleans, 2008.
144. Nolan, L.K. ‡, Johnson, T.J., Lamont, S.J., Kariyawasm, S.K., Liu, P., and Trampel, D. Host: Pathogen Interactions in Avian Colibacillosis: a Systems-Based, Functional Genomics Approach, USDA NRICGP Microbial Functional Genomics Awardees Program, 2008
145. Johnson, T.J. † and Nolan, L.K. Pathogenomics of *E. coli* Virulence Plasmids. International Plasmid Biology Society, Gdansk, Poland, 2008 [**Winner of Brian Wilkins Prize**]
146. Nolan, L.K., ‡ Johnson, T.J., Kariyawasam, S., Wannemuehler, Y.M., Li, G., Jordan, D.M. and Logue, C.M. pAPEC408-ColBM/R: An APEC R Plasmid Harboring a Pathogenicity Island, International Plasmid Biology Society, Gdansk, Poland, 2008
147. Nolan, L.K. ‡, Tivendale, K.A., Mangiamele, P., Johnson, T.J., Wannemuehler, Y., and Trampel, D. 2009. Toolbox for Exploring APEC Pathogenesis, Evolution, Control, and Host Specificity, NSF/ USDA-CREES Microbial Genome Sequencing Program Awardees Meeting held in conjunction with Plant and Animal Genome Meeting XVII, San Diego, 2009
148. Nolan, L.K. ‡, Johnson, T.J., Wannemuehler, Y.M., Li, G., Tivendale, K.A., Kariyawasam, S., Logue, C.M., and Mangiamele, P. APEC Virulence Plasmids: Multipurpose Contributors to Disease, AVMA/AAAP, Seattle, WA, 2009
149. Logue, C.M. ‡, Wannemuehler, Y.M., and Nolan, L.K. Do Arsenic-Containing Compounds Select for Multidrug Resistant APEC? AVMA/AAAP, Seattle, 2009
150. Mangiamele, P. ‡, Johnson, T.J., Wannemuehler, Y.M., Logue, C.M., and Nolan, L.K. R Plasmids Found among Emergent APEC, AVMA/AAAP, Seattle, 2009

151. Mou, K.T. ‡*, Tivendale, K.A., Wannemuehler, Y., and Nolan, L.K. Predicting the Virulence of APEC using Serogroup, Phylogenetic Group and MLST. AVMA/AAAP, Seattle, 2009
152. Li, G. ‡*, Kariyawasam, S., Wannemuehler, Y.M., Tivendale, K.A., and Nolan, L.K. Novel Autotransporter Is Necessary for the Full Virulence of APEC. AVMA/AAAP, Seattle, 2009
153. Tivendale, K.A. ‡*, Logue, C.M., Wannemuehler, Y.M., Li, G., Hussein, A., Kariyawasam, S., Mou, K., and Nolan, L.K. APEC O18: Emerging Isolates that are Highly Pathogenic in Poultry. AVMA/AAAP, Seattle, 2009
154. Tivendale, K.A., Logue, C.M., Kariyawasam, S., Jordan, D., Hussein, A., Li, G., Wannemuehler, Y., Nolan, L.K. APEC as a Causative Agent of Meningitis in Rats. ASM, San Diego, 2010
155. Li, G. ‡*, Johnson, T.J., Liu, P., and Nolan, L.K. Transcriptome Analysis of APEC in Serum Reveals Adaptive Responses to Systemic Infection. ASM, San Diego, 2010
156. Sandford, E., Orr, M., Liu, P., Nolan L., and Lamont S.J. Splenic gene expression after infection of broiler chickens with APEC. ISAG, Edinburgh, 2010
157. Sanford, E. Lamont, S.J., and Nolan, L.K. Effect of Avian Pathogenic *Escherichia coli* Infection on Peripheral Blood Leukocyte Gene Expression in Broiler Chickens. Poultry Science Association Annual Meeting, St. Louis, 2011
158. Sandford, E., Orr, M., Li, X., Zhou, H., Johnson, T.J., Kariyawasam, S., Liu, P., Nolan, L.K., and Lamont, S.J. Whole Transcriptome Response of Peripheral Blood Leukocytes to Avian Pathogenic *Escherichia coli* Infection in Broiler Chickens. 7th European Symposium on Poultry Genetics, Peebles, Scotland, 2011
159. Li, G., Johnson, T.J., Liu, P., and Nolan, L.K. Transcriptome Analysis of APEC in Serum Reveals Adaptive Responses to Systemic Infection. AVMA/AAAP, St. Louis, 2011
160. Cai, W., Li, G. and Nolan, L.K. A Novel Two-Component Signaling System KguS/KguR Involved in Utilization of α -Ketoglutarate Contributes to Urovirulence in Uropathogenic *Escherichia coli*. Microbial Pathogenesis and Host Response, Cold Spring Harbor, NY 2011
161. Nicholson, B.A.‡*, Li, G., Logue, C.M., and Nolan, L.K. Role of Plasmids in NMEC Virulence. NC ASM Meeting, Des Moines, Iowa 2011
162. Grace Kooley, Nolan, L.K., and Logue, C.M. Plasmid-Mediated Acid Tolerance in APEC. AAAP/AVMA Annual Meeting, San Diego, CA, 2012
163. Cai, W., Kariyawasam, S., Wannemuehler, Y.M., Logue, C.M., Nolan, L.K., Li, G. A Novel Two-Component Signaling System Facilitates Uropathogenic *Escherichia coli* to Exploit Abundant Host Metabolites. CVM Research Day, Ames, Iowa 2012
164. Hussein, A.H., Ghanem, I.A., Mahdi, A.A., Li, G., Nolan, L.K., and Logue, C.M. Characterization of *Escherichia coli* Strains Isolated from Broiler Chicken flocks in Egypt. CVM Research Day, Ames, Iowa 2012
165. Nicholson, B.A., Mangiamele, P.M., Li, G., and Nolan, L.K. Sequence Analysis and Characterization of the Large Plasmid from Neonatal Meningitis *Escherichia coli*. CVM Research Day, Ames, Iowa 2012 (**2nd Place Finish in Graduate Student Competition**)

166. Mangiamele, P., Nicholson, B.A., and Nolan, L.K. Modern Genomic Sequence Finishing. CVM Research Day, Ames, Iowa 2012
167. Kooney, G., Nolan, L.K., and Logue, C.M. Plasmid Burden in APEC. CVM Research Day, Ames, Iowa 2012 (**3rd Place Finish for Veterinary Summer Scholars**)
168. Sandford, E. E., Orr, M., Li, X., Zhou, H., Johnson, T.J., Kariyawasam, S., Liu, P., Nolan, L.K., Lamont, S.J. Multi-tissue, Multi-time Transcriptome Analysis of Host Response to APEC Infection. Avian Immunology Group Meeting. Edinburgh, Scotland, August 2012
169. Hussein, A.H.M., Ghanem, I.A.I., Li, G., and Nolan, L.K. Identification of Potential Antigens for APEC Vaccine Development. NC ASM Meeting, Fargo, ND, October 2012
170. Barbieri, N.L., Horn, F., Nolan, L.K., and Li, G. The FNR Deletion Affects Virulence in UPEC strain CFT073. NC ASM Meeting, Fargo, ND, October 2012
171. Nolan, L.K., Li, G., and Logue, C.M. 2013. Poultry as a Possible Food-Borne Source of Human ExPEC? Clinical and Scientific Advances in UTIs Conference, Research Institute at Nationwide Children's Hospital, Columbus, Ohio, May 2013
172. Cai, W., Wannemuehler, Y., Dell'Anna, G., Nicholson, B., Barbieri, N., Kariyawasam, S., Feng, Y., Logue, C.M., Nolan, L.K., and Li, G. A Novel Two-Component Signaling System Facilitates UPEC Adaptation to Renal Physiology. Clinical and Scientific Advances in UTIs Conference, Research Institute at Nationwide Children's Hospital, Columbus, Ohio, May 2013
173. Logue, C.M., Sherwood, J.S., Wannemuehler, Y., and Nolan, L.K. Antimicrobial resistance patterns in *Escherichia coli* isolated from UTIs in adults and children. Clinical and Scientific Advances in UTIs Conference, Research Institute at Nationwide Children's Hospital, Columbus, Ohio, May 2013
174. Nicolle L. Barbieri, Wentong Cai, Bryon A. Nicholson, Ashraf Hussein, Catherine M. Logue, Fabiana Horn, Lisa K. Nolan, and Ganwu Li. FNR Controls Expression of Major Virulence Genes in *Uropathogenic Escherichia coli*. Brazilian Society of Microbiology, Natal, Brazil, October 2013

PRESENTATIONS/POSTERS WITHOUT PROCEEDINGS

1. Nolan, L.K., Wooley, R.E., Brown, J., and Payeur, J.B. Virulence Factors of *Salmonella* Isolated from Chickens. Georgia Veterinary Medical Association Poultry Program, Jekyll Island, GA, 1989
2. Rosen, P. P.* and Nolan, L. K. Detection of *Salmonella* in Cattle. Molecular Pathogenesis Symposium at the Joint MN-ND Academies of Science Meeting, Fargo, ND, 1994
3. Horne, S.M., Young, K.D., Kottom, T.J., and Nolan, L.K. FK506 Binding Proteins May Be Involved in Pathogenesis, Frank Low Research Day, Grand Forks, N.D., 1995
4. Yue, Shinji, S.P.* and Nolan, L.K. Virulence Factors Encoded by Conjugative R Plasmids of *Escherichia coli* O157 Isolates. Mid-Continent Undergraduate Student Research Conference, Minot State University, Minot, ND, 1997 [**Third Place Award**]
5. Nolan, L.K., White, D.G., Kahan, S., Horne, S.M., Giddings, C.W., and Dyer, N.W. Swine Salmonellosis. North Dakota Pork Producers, Carrington, ND, 1997

6. Dyer, N.W., Stoltenow, C.L., White, D.G., and Nolan, L.K. Calf Scours in North Dakota: Thoughts and Recommendations. Annual North Dakota Cow-Calf Conference, Bismarck, ND, 1998
7. Panigrahi, S., Kizil, U., Logue, C.M., Marchello, M., and Nolan, L.K. Quality Evaluation of Meat. American Society of Agricultural Engineers Annual Meeting, Sacramento, CA, 2001
8. Logue, C.M. and Nolan, L.K. Multidisciplinary Educational Program in Food Safety. AVMA/AAAP Annual Meeting, Philadelphia, 2004
9. Logue, C.M., Nolan, L.K., et al., Food Safety Risk Assessment. USDA CSREES Post-Award Management Workshop for Non-Competitive Food Safety Grants. Washington DC, 2005
10. Spitler, D.K., Johnson, T.J., Wannemuehler, Y., and Nolan, L.K. Plasmid-Linked Class 1 Integron among the *E. coli* of Poultry. Veterinary Summer Scholar Research Program National Symposium, Athens, GA, 2005
11. Scaccianoce, J., Wannemuehler, Y., Johnson, T.J., and Nolan, L.K. Comparison of APEC and Human UPEC. Research in the Capitol, Des Moines, IA, 2006
12. Kariyawasam, S.*‡ and Nolan, L.K. *papA* Gene of APEC. Virulence Mechanisms of Bacterial Pathogens Meeting, Ames, IA., 2006

INVITED SCIENTIFIC OR LAY PRESENTATIONS/LECTURES/MEDIA EVENTS/CONTINUING ED

1. Nolan, L.K. Complement Resistance and APEC. National Animal Disease Center, Ames, IA, 1992
2. Nolan, L.K. Complement Resistance and APEC. College of Osteopathic Medicine of the Pacific, Pomona, CA, 1992
3. Nolan, L.K. Virulence of APEC. University of Wisconsin, Department of Medical Microbiology, Madison, WI, 1992
4. Nolan, L.K. Complement Resistance and Virulence of APEC. National Institutes of Health, Bethesda, MD, 1992
5. Nolan, L.K. Complement Resistance and Avian APEC. NDSU, Fargo, ND, 1992
6. Nolan, L.K. Complement Resistance and APEC. Louisiana State University, Baton Rouge, 1992
7. Nolan, L.K. Getting in and Staying in Vet School. Pre-Vet Club, NDSU, Fargo, ND, 1992
8. Nolan, L.K. Transposons to Study Virulence Factors of APEC. Women in Science Group, Fargo, 1993
9. Nolan, L.K. Virulence Factors of Avian *Escherichia coli*. Department of Pathobiology, College of Veterinary Medicine, Auburn University, 1993
10. Nolan, L.K., Boland, E.W., and Smith, M.H. Bacterial Causes of Calf Scours. Annual North Dakota Cow-Calf Conference, Bismarck, ND, 1994
11. Rosen, P.P.* and Nolan, L.K. Amplification of *invA* and *pagC* Gene Sequences to Detect *Salmonella* Carriers in Cattle. University of Minnesota (Crookston Campus) Crookston, MN, 1995
12. Nolan, L.K. On Becoming a Veterinarian. F/M Communiversity, Moorhead, MN, 1995

13. Nolan, L.K. Complement Resistance and Avian *Escherichia coli*: the Ongoing Saga. Department of Medical Microbiology, University of Georgia, Athens, GA, 1995
14. Nolan, L.K. Complement Resistance of an *Escherichia coli* Isolate. Department of Veterinary Science, South Dakota State University, Brookings, SD, 1995
15. Nolan, L.K. Life as a Scientist. Women in the Next Generation of Science Career Panel. North Dakota State University, Fargo, ND, 1995
16. Nolan, L.K. Complement Resistance of an Avian *Escherichia coli* Isolate. North Central Branch of the American Society for Microbiology, Iowa City, IA, 1995
17. Wooley, R.E. and Nolan, L.K. Traits of Virulent Avian *Escherichia coli*: An Update. Department of Medical Microbiology, University of Georgia, Athens, GA, 1996
18. Nolan, L.K. Life as a Scientist or Veterinarian. Dinan Residence Hall, NDSU, 1997
19. Nolan, L.K. Balancing Science Careers and Real Life. Phi Sigma Honor Society, NDSU, 1997
20. Nolan, L.K. Emerging Diseases in Veterinary Medicine. CE for Veterinarians, NDSU, 1997
21. Nolan, L.K. Swine Salmonellosis. Interview for the local radio station, KDSU, Fargo, ND, 1997
22. Nolan, L.K. The Hot Zone. Extension Youth Conference, ND 4H Ambassadors and NDSU Extension Service, 1997
23. Nolan, L.K. Detection of Virulent Avian *Escherichia coli*. Department of Veterinary and Biomedical Sciences, University of Nebraska-Lincoln, 1997
24. Nolan, L.K. Emerging Bacterial Diseases. Society for Midwifery. Fargo, ND, 1997
25. Nolan, L.K. and White, D.G. Animal Health Research in the VMS. State Board of Agricultural Research, Fargo, ND, 1997
26. Nolan, L.K. Adventures in Veterinary Schooling. Pre-Veterinary Club, Fargo, ND, 1997
27. Nolan, L.K. Animal Health Research at NDSU. Harvest Bowl (audience included award-winning producers from every county in the state), College of Agriculture, NDSU, Fargo, ND, 1997
28. Nolan, L.K. Scholarship of Teaching. NDSU, 1997
29. Nolan, L.K. Bacterial Diseases of Production Animals Research at NDSU. Biotech/Student ASM Chapter, NDSU, 1998
30. Nolan, L.K. Iss in Colibacillosis Control. Fort Dodge Animal Health Co., Fort Dodge, IA, 1998
31. Nolan, L.K. Grantsmanship. Fall Conference, Holiday Inn, Fargo, ND, 1998
32. Nolan, L.K. and White, D.G. Bioterrorism. News 4 (KXJB-TV) Interview, 1998
33. Nolan, L.K. Bioterrorism. TriCollege Symposium on Terrorism, TriCollege (NDSU, Moorhead State University, and Concordia), 1998
34. Nolan, L.K., Horne, S.M., Robinson, M., Martsching, S.L., and Dyer, N.W. CNF-1 as a Potential Control Target for *E. coli*-Caused Calf Scours. North Dakota's State Board of Agricultural Research, Agricultural Research Fund Committee, Bismarck, ND, 1998

35. Nolan, L.K. Detection of APEC. College of Pharmacy, NDSU, Fargo, ND, 1998
36. Nolan, L.K. Last Lecture: Bioterrorism - Is there a Connection? Last Lecture Series, Stockbridge Hall, NDSU, Fargo, ND, 1999
37. Nolan, L.K. Possible Use of Biological Weapons. ND-STEP, NDSU, Fargo, ND, 1999
38. Nolan, L.K. et al. Teaching Skills. New Academic Staff Orientation, NDSU, Fargo, ND, 1999
39. Nolan, L.K. Food Safety Education at NDSU. Annual Meeting of the North Dakota Poultry Industries, Fargo, ND, 1999
40. Nolan, L.K. Poultry Disease Research at NDSU. The Annual Meeting of the North Dakota Poultry Industries, Fargo, ND, 1999
41. Nolan, L.K. Balancing a Career in Science and Real Life. Phi Sigma Honor Society, NDSU, 2000
42. Nolan, L.K. Bacterial Virulence and Antimicrobial-Resistance Mechanisms. Department of Veterinary and Biomedical Sciences, University of Nebraska-Lincoln, 2000
43. Nolan, L.K. Are There Good *E. coli* and Bad *E. coli*? Poultry Health Symposium, Modesto, CA, 2000
44. Nolan, L.K., *et al.* The New Food Safety Minor at NDSU. Minnesota Public Radio, 2000
45. Nolan, L.K. Virulence Factors of APEC. World Poultry Congress, Montreal, Quebec, 2000
46. Nolan, L.K. Complement Resistance and Avian Colibacillosis. Women's Study Symposium, NDSU, Fargo, 2000
47. Nolan, L.K. *et al.* New Food Safety Minor at NDSU. Prairie Public TV, 2000
48. Nolan, L.K. Veterinary Medicine: A World of Opportunity. Annual Meeting of the Student American Veterinary Medical Association, Ames, IA, 2001
49. Nolan, L. K., Food Safety Minor at NDSU. *Fargo Forum*, 2001
50. Jensen, P.A. and Nolan, L.K., Food Safety Minor and Beyond. KFGO Radio Talk Show, 2001
51. Nolan, L. K. Multidisciplinary Teaching Collaboration. North Central Division of the American Phytopathological Society, Manhattan, KS, 2001
52. Nolan, L.K., Johnson, T.J., Foley, S.L., Horne, S.M., Giddings, C.W., Lynne, A.M., Kercher, R.M., and Skyberg, J. Complement Resistance, *iss* and its Associates, and APEC Virulence. 52nd North Central Avian Disease Conference, Grand Rapids, MI, 2001
53. Nolan, L.K. Emerging Disease: Should You Be Worried? North Dakota Educators Association: North Dakota Science Teacher Association Fall Conference. West Fargo, ND, 2001
54. Nolan, L.K. Bioterrorism. Dakota Medical Foundation. Fargo, ND, 2001
55. Nolan, L.K. Bioterrorism. NDSU Youth Leadership Conference. Fargo, ND, 2002
56. Nolan, L.K. Food Safety PhD. *Fargo Forum* and AP Wire. 2002
57. Nolan, L.K. Report to Governor on NDSU's Food Safety Programs. News 4 (KXJB-TV) Interview, 2002
58. Nolan, L.K. Food Safety Educational Programs. KFGO Radio Talk Show, 2002

59. Nolan, L.K. Academic Achievement and Real Life. Golden Key International Honor Society Annual Banquet, NDSU, 2002
60. Nolan, L.K. It's All about Students! North Georgia College and University, NDSU, 2002
61. Nolan, L.K. Emerging Disease. NDSU Orientation: Sample Lecture for Freshmen Parents. 2002
62. Nolan, L.K. Impact of Plasmid-Mediated Virulence and Antimicrobial Resistance on Production of Poultry. Minnesota Public Radio, 2002
63. Nolan, L.K. You are Making a Difference! NDSU Development Foundation Service Award Banquet. Fargo, 2002
64. Nolan, L.K. Possible Approaches to Improving Food Security: An Academician's Contribution. Bioterrorism and Food Security: Issues and Challenges Conference. Fargo, 2002
65. Nolan, L.K. Infectious Diseases and You. West Fargo High School Assembly. West Fargo, 2002
66. Nolan, L.K. Complement Resistance, *iss* and its Associates, and APEC Virulence, Department of Pathobiology and Veterinary Science, University of Connecticut. Storrs, CT, 2002
67. Nolan, L.K. Bioterrorism: Dispelling the Myths, 1st Presbyterian Church, Fargo, ND, 2003
68. Nolan, L.K. Developing a Vision for VMPPM's Future, Iowa State University, Ames, IA, 2003
69. Nolan, L.K. Being a Happy, Successful Student. Scholars' Recognition Luncheon, NDSU, Fargo, 2003
70. Nolan, L.K. Success is Measured in Many Ways. Beta Beta Beta Honor Society, ISU, Ames, IA, 2004
71. Nolan, L.K. and Johnson, T.J. Emergence of a Plasmid-Mediated Reservoir of Resistance Genes among APEC, Alliance for the Prudent Use of Antibiotics, ASM, Atlanta, 2005
72. Nolan, L.K., Johnson, T.J., Kariyawasam, S., Skyberg, J., Lynne, A., Wannemuehler, Y.M., and Scaccianoce, J. APEC Virulence and Resistance. Iowa Egg Industry Symposium, 2005
73. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. Osborn Club, ISU, 2006
74. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. Department of Veterinary Microbiology and Preventive Medicine, ISU, 2006
75. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. University of Maryland, 2006
76. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. National Farm Medicine Center, Marshfield Clinic Research Foundation, Marshfield, WI, 2006
77. Nolan, L.K. Academic Veterinary Medicine of the Future. University of Florida's College of Veterinary Medicine, 2006
78. Nolan, L.K. New Insights into an Old Enemy: What Genomic Sequencing Tells Us about *E. coli*. NC Veterinary Conference, North Carolina State University, Raleigh, 2006
79. Trampel, D., Wannemuehler, Y., and Nolan, L.K. APEC Virulence and Laying Hen Peritonitis. Iowa Egg Industry Symposium, 2006
80. Nolan, L.K. APEC: Latest Insights. Pacific Egg and Poultry Association Annual Conference, San Diego, 2007

81. Johnson, T.J. and Nolan, L.K. APEC: Latest Insights. National Institute on Animal Agriculture, Sacramento, CA, 2007
82. Nolan, L.K. Commencement Address. Missouri Academy, Northwest Missouri State University, Maryville, MO, 2007
83. Nolan, L.K. New Insights into an Old Enemy: What Genomic Sequencing Tells Us about APEC and Future Control of Colibacillosis. AgTech, Waukesha, WI, 2007
84. Nolan, L.K., Trampel, D.T., Wannemuehler, Y., and Johnson, T.J. Changing Nature of Avian Colibacillosis and APEC. Iowa Egg Symposium, 2007
85. Nolan, L.K. APEC, the Etiologic Agent of Avian Colibacillosis. Fort Dodge Animal Health, Puerto Vallarta, Jalisco, Mexico, 2008
86. Nolan, L.K. Antibiotic Resistance Reservoirs in Commensal Organisms. Sponsored by the Alliance for Prudent Use of Antibiotics and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), ASM Annual Meeting, Boston, 2008
87. Nolan, L.K. Iowa State University's Vision for Veterinary Medical Education. Second Annual Regional Planning Meeting, ISU-CVM, Ames, IA 2008
88. Nolan, L.K. CE for CVTs on Zoonoses. Annual Meeting of Montana Veterinary Medical Association (Big Sky Veterinary Technology Association), Livingston, MT, 2008
89. Tivendale, K.* and Nolan, L.K. Epidemic of APEC-Like Plasmids. Iowa Emerging Zoonosis Conference, National Animal Disease Center, Ames, IA, 2008
90. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. University of Arizona, Tucson, 2009
91. Nolan, L.K. APEC: Devastating Avian Pathogen; Possible Human One. JiaoTong University, Shanghai; Nanjing Agricultural University, Nanjing; and Yangzhou University Veterinary College, Yangzhou, China, 2009
92. Nolan, L.K. Master Lecture. Poultry as a Potential Source of ExPEC Causing Human Disease. Asociación Nacional en Ciencias Avícolas de México, Acapulco, Mexico, 2009
93. Nolan, L.K. What Genomic Sequencing Tells Us about APEC and Future Control of Colibacillosis, College of Veterinary Medicine, University of Minnesota, 2009
94. Nolan, L.K. Keynote Address. What Genomic Sequencing Tells Us about APEC and Future Control of Colibacillosis, Bacterial Pathogenesis Section of CRWAD, Chicago, planned for 2009 (canceled due to a family emergency)
95. Nolan, L.K. Master Lecture. Pathogenomics of Extraintestinal Pathogenic *Escherichia coli*. Universidade Estadual de Campinas, Campinas, São Paulo State, Brazil, 2010
96. Nolan, L.K. One Health Approaches to Prevention of Infectious Diseases, University-Wide One Health Symposium, Iowa State University, March 2010
97. Trampel, D.W., Tivendale, K.A., Nolan, L.K., and Frana, T. Colibacillosis in Turkeys and APEC. Turkey producers in Washington, Jewell, and Storm Lake, IA, 2010

98. Nolan, L.K. Division Z Lecturer and Interplay between Antibiotic Resistance and Bacterial Virulence Symposium Speaker. Coselection of Bacterial Virulence and Resistance Determinants, ASM, San Diego, 2010
99. Nolan, L.K. Keynote Address. Exploring ExPEC Virulence, Evolution, and Host Specificity using Pathogenomic Approaches, The Prato Conference on the Pathogenesis of Bacterial Diseases of Animals, Prato, Italy, October 6-9, 2010
100. Nolan, L.K. What Genomic Sequencing Tells Us about APEC and Future Control of Colibacillosis, São Paulo, Recife, Campinas, and Porto Alegre, Brazil, October 25-29 2010
101. Nolan, L.K. Latest Advances in Colibacillosis. Iowa Egg Industry Symposium, November 2010
102. Nolan, L.K. Keynote Address. Insights in APEC Pathogenesis, Evolution and Control. XII South Brazil Poultry Symposium, Chapeco, Santa Catarina State, Brazil, April 2011
103. Nolan, L.K. Keynote Address. Changing Role for Women in Veterinary Medicine. Sloss Women's Center Gender Equity Awards and Scholarship Reception, Iowa State University, April 2011
104. Nolan, L.K. Keynote Address. Recent Insights into APEC Pathogenesis. XVII Congress of the World Veterinary Poultry Association, Cancun, Mexico, August 2011
105. Nolan, L.K. Invited Speaker, *Escherichia coli* Infections in Poultry: A Food Safety Concern? XVII Congress of the World Veterinary Poultry Association, Cancun, Mexico, August 2011
106. Nolan L.K. Invited Speaker, APEC Pathogenesis, Evolution and Zoonotic Potential, *Escherichia coli* Pathogenesis Symposium, Society for General Microbiology, York, UK, September 2011
107. Nolan, L.K. Invited speaker. Exploring APEC Virulence, Evolution, and Host Specificity using Pathogenomic Approaches, Sam Houston State University, September 2011
108. Nolan, L.K. Invited Speaker. Leadership from a Dean's Perspective, Iowa Way Up Conference, Des Moines, Iowa, November 2011
109. Nolan, L.K. Keynote Address. Exploring APEC Virulence, Evolution, and Host Specificity using Pathogenomics, Bacterial Pathogenesis Section of CRWAD, Chicago, December 2011
110. Nolan, L.K. Invited Seminar. Exploring APEC Virulence, Evolution, and Host Specificity using Pathogenomics. Des Moines University, February 2012
111. Nolan, L.K. Invited Speaker. Innovative Solutions in One Health – The Land-Grant Perspective, Farm Animal Integrated Research Conference, Washington, D. C., March 2012
112. Nolan, L.K. Keynote Lecture. New Insights into an Old Foe: What Pathogenomic Analysis Tells Us about APEC. Post-Graduate Symposium, Universidade Estadual de Campinas, Campinas, São Paulo State, Brazil, May 2012
113. Nolan, L.K. Invited Lecture. New Insights into an Old Foe: What Pathogenomic Analysis Tells Us about APEC. Centre for Biotechnology, Dept. Biofísica, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil, May 2012
114. Nolan, L.K. Keynote Talk. Colibacillosis: Diagnosis, Treatment and Prevention. AVECAO. Mexico City, Mexico, to be presented August 2012 (Declined due to prior obligations)

115. Nolan, L.K. Invited Speaker, APEC: A Food-Borne Pathogen Important in Human Urinary Tract Infections and Neonatal Meningitis? 19th China Yangling Agricultural Hi-Tech Fair, Yangling, P.R. China, November 2012
116. Nolan, L.K. Invited Speaker, Current Information on Colibacillosis Control. Big Bad Bug Symposium, Ottawa, Canada, November 2012
117. Nolan, L.K. Invited Speaker. Foodborne Urinary Tract Infections (FUTIs): Assessing the State of the Science. The Pew Charitable Trusts, Washington, D.C., February 2013
118. Nolan, L.K., Li, G., and Logue, C.M. Invited Speaker. Co-Selection of Resistance and Virulence in Extraintestinal Pathogenic *Escherichia coli*. 5th Symposium on Antimicrobial Resistance in Animals and the Environment (ARAE), Ghent, Belgium, June 2013

TALKS REPRESENTING THE COLLEGE

Many presentations showcasing the college or advocating for it and the profession to alumni, potential students, stakeholders, commodity groups, visiting dignitaries, international groups, legislative committees and other stakeholders, including Farm Bureau, Iowa Pork Producers, Iowa Turkey Producers, Iowa Veterinary Medical Association, Iowa Veterinary Medical Association Executive Board, Nebraska Veterinary Medical Association, numerous other VMAs, Iowa State Alumni Board of Governors, Waukee Rotary, etc., and in many different venues, e.g., Western Veterinary Conference, American Veterinary Medical Association, North American Veterinary Conference, etc.