

Jay F. Levine DVM MPH **Professor of Epidemiology and Public Health**

Address/Telephone Numbers

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Education

M.P.H.	Harvard University School of Public Health	1984
D.V.M.	University Tennessee College of Veterinary Medicine	1980
B.S.	Michigan State University	1975

Licensure: North Carolina Veterinary Medical Board license #6724

Professional Experience

Co-Director NC State Climate Change and Society Graduate Program	2016-present
Professor of Epidemiology and Public Health, Department of Marine, Earth and Atmospheric Sciences, College of Sciences, NC State University	2016-present
Interim Department Head, Department of Marine, Earth and Atmospheric Sciences, College of Sciences, North Carolina State, University	2016-2019
Adjunct Professor, University of North Carolina, Chapel Hill Department of Epidemiology	2007-present
Professor of Epidemiology and Public Health, College of Veterinary Medicine, North Carolina State University	2006-2019
Research Associate Curator NC State Museum of Natural Sciences	2002-2011
Associate Professor of Epidemiology and Public Health, College of Veterinary Medicine, North Carolina State University	1990-2006
Adjunct Faculty, Department of Biology, East Carolina University	1988
Assistant Professor of Epidemiology and Public Health College of Veterinary Medicine, North Carolina State University	1984 -1990
Researcher/Clinical Assistant Harvard University School of Public Health	1982-1984
Hospital Veterinarian, Massachusetts General Hospital	1981-1983
Research fellow/Veterinary Clinician, Harvard Medical School	1980-1982

Specialty Training

Food Systems Leadership Institute Fellow	2015-2017
Animal Cruelty and Fighting Investigations	2012
Smith Kilborne Training Course at Plum Island Focused on Diagnosing, and Confirming Foreign Animal Diseases	2012

Incident Command System Training/Foreign Animal Disease Training

- IS 10 & 11: Animals in Disaster, Module A&B: Awareness and Preparedness
- IS 100: Introduction to Incident Command System, I-10
- IS 200: ICS for Single Resources and Initial Action Incidents
- IS 700: National Incident Management System (NIMS), An Introduction
- IS 800: National Response Framework, An Introduction
- IS 807: Emerg. Support Function (ESF) #7 – Logistics Mgmt. and Res. Support Annex

Honors

- NCSU Community Engaged Faculty Fellows 2015-present
- NC State Nominee for the Board of Governor's Service Award 2014
- Outstanding Extension Service Award 2012
- NCSU Alumni Association Extension and Outreach Award 2012
- Academy of Outstanding Faculty Engaged in Extension 2012

- National C. Peter Magrath Community Engagement Scholarship Award 2010
Association of Public and Land-Grant Universities
- W.K. Kellogg Foundation Community Engagement Scholarship Award 2010
– University,
- W.K. Kellogg Foundation Community Engagement Scholarship Award 2010
Regional
- NC State College of Veterinary Medicine Huffman Leadership Award 2005
- Coastal Federation Pelican Award (1st award for their program) 2003
- R. Randy Rice North Carolina Housing Officers Service Award 2000
- NC State University Pfizer Award for Excellence in Research 2000
- Phi Zeta Veterinary Honor Society 1980

Professional Memberships

- American Veterinary Medical Association
- American Association of Food Safety and Public Health Veterinarians
- Southeast Regional Climate Center (Affiliate)
- Citizen Science Association

Advisory Boards, Association, NC State and Community Steering Committees

- NC State Provost's Department Head Advisory Committee 2017-2019
- Research Triangle One Health Steering Committee 2012
- Homework Haven (Director) 2008-present
- Center for Disease Control and Prevention-SLTT Work Group 2010-2011
and Biosurveillance Coordination
- Wake County Epidemiology Surveillance Team 2009-present
(Preparedness/Epidemiology Team)
- North Carolina B-Prepared Steering committee 2009-2010
- North Carolina Mollusk Scientific Council 2006-2015
- National Association of Public Health Veterinarians, Veterinary Standard Precautions Compendium Committee 2006-2016

Wake County Stormwater Ordinance Stakeholder Committee (co-chair)	2005-2006
North Carolina Program for Forensic Sciences Steering Committee	2005-2014
NC State Museum of Natural Sciences Friends of the Museum Board	2004-2009
Executive Committee Wake County Human Services Advisory Board	2004-2005
Association of American Colleges of Veterinary Medicine, Public Health Task Force	2005-2011
Wake County Human Service Advisory Board (vice chair)	2003-2005
Wake County Water Quality Subcommittee (Chair)	2003-2005
North Carolina State University Theater Endowment Board	2003-2005
North Carolina Bioterrorism Preparedness Surveillance Committee	2003-2004
North Carolina Pneumonic Plague Exercise Planning Committee	2003
North Carolina Bioterrorism Preparedness Training Committee	2002-2004
Wake County Human Services Advisory Board	2002-2005
Wake County Environmental Services Committee	2002-2005
Sturgeon City Non Profit Advisory Board	1998-present
Sturgeon City Steering Committee	1998-2004
Wilson Bay Water Quality Initiative Steering Committee (Chair)	1998

Research/Extension/Outreach Funding (Total Awards > \$15 million)

Pending

Levine, JF, Showers, W, Osburn, CL, Harris, A. Attributing the Source of Fecal Waste in Surface Waters. NC Pork Council, 12/20-12/21. \$57,000

Current Funding

Levine, JF, Showers, W, Osburn, CL, Harris, A. Correctly Classifying the Source of Fecal Waste in Surface Waters. National Pork Board, 4/19-7/20. \$134,795 (Renewal).

Cope, WG, Levine, JF, Eads, CB, Kwak, TJ, Rick, J, Burkholder, JM, Richardson, RJ. Aquatic Species Restoration and Research at the Eastern Aquatic Conservation Facility at Yates Mill National Fish and Wildlife Foundation, 10/16-9/20, \$1,120,000.

Prior Funding

Levine, JF, Showers, W, Osburn, CL, Correctly Classifying the Source of Fecal Waste in Surface Waters. National Pork Board, 4/19-7/20. \$95,760.

Levine, JF, Osburn, C, Paerl, R. Role of algae, bacteria, dissolved organic carbon and fine particulate matter in the survival, growth and nutritional health of captive reared freshwater mussels. US Fish and Wildlife Service, 4/18-3/20, \$39,999.

Levine, JF. *In vitro* propagation of *Alasmidonta heterodon*, NC Department of Transportation. 8/17-7/20, \$178,233.

Levine, JF. Catastrophic Earth. NC State DELTA (Distance Education). 9/18-9/19, \$8,000.

Levine, JF, Eads, C. Propagation of the Tar River Spiny mussel (*Elliptio steinstansana*)

- NC Wildlife Resources Commission. 04/16-12/18, \$20,000,
- Levine, JF, Eads, C. Pond-based culture of the Yellow Lance (*Elliptio lanceolata*)
NC Wildlife Resources Commission, 5/16-12/18, \$30,000.
- Levine, J,F. Price, J, Eads, C. Assessment of the Columbia Dam Fish Passage on Recruitment of
Freshwater Mussels in the Broad River. South Carolina Dept. Natural Resources. 3/15-
8/18, \$86,246.
- Levine, JF, Stringer, A. Strategic Planning to Support Aquaculture Development in Ethiopia.
NCSU International Programs, 7/16-6/17, \$6,000.
- Levine, JF, Wegmann, K, Mitasova, H. Unionids in Streams at Fort Bragg, North Carolina:
Assessment of Species Distribution and Abundance in Relation to Channel Reach
Sediment Dynamics and Upland Erosion Potential: Freshwater Bivalve Survey for
Endangered Species Branch, Fort Bragg, North Carolina. US Army Corps of
Engineers/Department of the Army. \$103,500, 9/15-9/16.
- Nelson, S, Levine, JF. Capacity Building- Phase VI: Increasing the Pool for the Development of a
multicultural workforce and connection to underserved communities across the US.
8/15-7/17, \$71,534.
- Levine, JF. Eads, C. Glochidial Attachment Success of Wild and Captive Propagated and Reared
Tar River Spiny mussel (*Elliptio steinstansana*). NC Wildlife Resources Commission
4/15-9/16, \$16,898.
- Levine, JF., Eads, C. Evaluation of Pond-Based Propagation and Population Status Updates for
the Yellow Lance (*Elliptio Lanceolata*). NC Wildlife Resources Commission
\$29,970, 3/15-2/16.
- Levine, JF, Eads, C. Facilities Enhancements for the CVM Freshwater Mussel Barn to Support
Captive Propagation of Freshwater Mussels. US Fish and Wildlife Service. 7/09-10/15,
\$165,000.
- Levine, JF, Osburn, C, Borst, L, Law, M., Gangloff, M. Investigation of Factors Contributing to the
Decline in the Nutritional Health of *Alasmidonta raveneliana* in the Little Tennessee River,
Franklin, North Carolina. US Fish and Wildlife Service, 1/13-7/15, \$160,000.
- Levine, JF, Wegmann, K., Osburn, CL. Assessment of the Potential Association of Stream Bank
Erosion and Sedimentation With the Distribution and Abundance of Unionids in Streams
at Fort Bragg. Department of Defense/US Geological Survey 10/11-9/14, \$89,622.
- Levine, JF, Eads, C. Refining Protocols for the Captive propagation of *Alasmidonta raveneliana*,
Elliptio steinstansana and *Lasmigona decorata*. NC Wildlife Resources Commission
10/13-9/14, \$30,000.
- Levine, JF, Eads, C. Fish Hosts of *Alasmidonta undulata* and the Potential Effects of
Temperature on the Success and Timing of Larval Metamorphosis.

- NC Wildlife Resources Commission. 11/12-6/14, \$30,000.
- Levine, JF, Eads, C. Tar River Spiny mussel (*Elliptio steinstansana*) Propagation and Augmentation Research. 5/14-12/14, \$27,892.
- Levine, JF, Eads, C. Refinement of captive propagation and rearing protocols for *Elliptio steinstansana*, and *Lasmigona decorata*. North Carolina Wildlife Resources Commission. 1/13-9/13, \$20,000.
- Levine JF, Eads, C. Nutritional Health, Growth and Survival of Captive Propagated *Elliptio steinstansana*. NC Wildlife Resources Commission. 10/11-9/13, \$30,000.
- Levine, JF, Eads, C, Hurley, J. Preliminary studies of the comparative nutritional health of freshwater mussels in the Little Tennessee River and the Tuckasee River. NC Wildlife Resources Commission. 10/10-10/11, \$6,500.
- Levine, JF, Eads, C. Nutritional Health of the Tar-Spiny mussel. US Fish and Wildlife Service. 7/11-6/12, \$48,812.
- Levine, JF, Eads, C. Propagation of the Tar River Spiny mussel. NC Wildlife Resources Commission. 1/11-3/12, \$20,000.
- Levine, JF, Eads, C. Assessment of Ponds in the North Carolina Piedmont As A Nutritional Resource for Rearing Freshwater Mussels for Propagation Augmentation, 4/11-12/12, \$30,000.
- Levine, JF. Establishment of captive population(s) of Magnificent Ramshorn (*Planorbella magnifica*) and Greenfield Ramshorn (*Helisoma eucosmium*). US Fish and Wildlife Service. 10/11-9/12, \$29,000.
- Borst, L, Levine, JF, Ellis, C. Forensic Identification of Human Cutaneous Bacterial Signatures NCSU Strategic Research Initiative, 7/10-6/11, \$15,000.
- Levine, JF, Eads C. Propagation of the Tar spiny mussel. *Elliptio steinstansana* NC Wildlife Resources Commission, 12//10-11/11, \$19,996.
- Levine, JF, Eads C. Lake and pond-based grow-out of native North Carolina Unionids NC Wildlife Resources Commission, 7/10-6/11, \$30,000.
- Levine, JF, Eads C. Refinement of laboratory mussel propagation and grow-out techniques for four freshwater mussel species. NC Wildlife Resources Commission, 7/10-9/11, \$34,290.
- Levine, JF, Eads, C, Osburn, C, Showers, B. *Corbicula fluminea* and native freshwater mussel competition for food resources. NC Wildlife Resources Commission, 10/9-3/11, \$30,000.
- Levine, JF, Eads, C. Fish Host Identification, Culture, and Propagation of the Tar Spiny mussel and Yellow Lance, Two Rare Endemic Mussels of the North Carolina Piedmont. US Fish and Wildlife Service. 8/09-9/12, \$104,308.

- Levine, JF, Eads, C. Development of a Plan for Population Augmentation for Four North Carolina Freshwater Mussel Species. NC Wildlife Resources Commission, 7/09-6/10, \$30,000.
- Levine, JF, Eads, C. Tar River Spiny mussel (*Elliptio steinstansana*) Conservation Efforts NC Wildlife Resources Commission. 9/08-9/09, \$40,000.
- Levine, JF, Eads, C. Propagation of the Carolina Heelsplitter. NC Wildlife Resources Commission. 7/08-6/09, (Renewal) \$20,000.
- Levine, JF, Eads, C. Freshwater Mussel Research. NC Wildlife Resources Commission. 7/08-6/09, (Renewal) \$40,000.
- Levine, JF, Eads, C. Propagation and culture of federally listed freshwater mussel species. NC Dept. of Transportation, 8/08-12/10, \$252,565.
- Levine, JF, Jaykus, L, Ramirez-Toro, G. Enteric Pathogens in Molluscan Shellfish in Puerto Rico: An Integrated Approach. USDA National Integrated Food Safety Initiative 10/08-8/11, \$600,000.
- Levine, JF, Bucci, J, Law M. Effects of Polychlorinated Biphenyls on Non-native and Native Freshwater Bivalves. Nekton Research LLC, 4/07-8/07, \$91,535.
- Levine, JF, Eads, C. Propagation of the Carolina Heelsplitter. NC Wildlife Resources Commission. 7/07-6/08, \$53,460.
- Levine, JF, Eads, C. Freshwater Mussel Research. NC Wildlife Resources Commission. 7/07-6/08, \$49,560.
- Levine, JF, Eads, C, Raley ME. Fish Passage on the Broad River: An Assessment of the Benefits to Freshwater Mussels (Federal). US Fish and Wildlife Service/South Carolina Department of Natural Resources, 2/07-8/08, \$30,000.
- Levine, JF, Eads, C, Raley ME. Fish Passage on the Broad River: An Assessment of the Benefits to Freshwater Mussels (State). US Fish and Wildlife Service/South Carolina Department of Natural Resources. 2/07-8/08, \$79,639.
- Levine, JF, Eads, C. Freshwater Mussel Research. NC Wildlife Resources Commission. 7/6-6/07, \$33,000.
- Levine, JF, Morgan ME, Bogan A. Genetic Analysis of the Virginia lanceolate *Elliptio* Species. Virginia Department of Game and Inland Fisheries. 4/07-12/08, \$18,000.
- Graves, A. Identifying Sources of Fecal Contamination and TMDL Development in the Swanquarter Bay. 8/06-7/08, \$158,914.
- Joens, LA, Besser, TE, Levine, JF, Langdon, C. Defining the role of *Salmonella* Newport in contaminated oysters. USDA/CSREES/NRI Epidemiologic Approaches to Food Safety. 10/06-8/10, \$1,000,000, (Subcontract) \$235,000.

Levine, JF, Eads, *Carolina heelsplitter* Conservation Measures. NC Wildlife Resources Commission. 7/06-6/07, \$35,860.

Levine, JF, Shivappa R. Development of DNA and Subunit Vaccines for Spring Viremia of Carp Virus and Koi Herpes Virus. USDA/CSREES/Critical Issues Program. 11/05 – 6/08, \$131,960.

Graves, A, Levine JF, Li, Identifying the Sources of Fecal Contamination in Swann Quarter Bay. EPA 319 Program. 5/06-4/ 07, \$158,000.

Levine, JF, Gardner I. Risk-Based Verification Sampling for *Listeria monocytogenes* USDA/FSIS. 1/05-12/06, \$35,057.

Levine JF. US/EU Safe-Food Collaboration. USDA CSREES/NRI, 9/05-8/06, \$5,000.

Levine, JF, Altier C, Jaykus, L. (Consortium of 35+ investigators, 13 universities) Food Safety Research and Response Network. USDA CSREES/NRI. 1/05-12/09, \$5,000,000.

Levine, JF. Food Safety Research Response Network Web Site and Training Program. National Pork Board. 1/05-12/05, \$30,000 (Extension/Outreach).

Jaykus, L, Bell J, Jaynes, M, DePaola A, Supan J, Levine J. Ecology and Control of Pathogenic Strains of *Vibrio vulnificus* and *Vibro parahaemolyticus* in US Gulf Coast Oysters. USDA CSREES/NRI: Epidemiologic Approaches to Food Safety, 10/04-9/07, \$1,430,540.

Holliman, FM, Kwak T, Cope G, Levine JF. Assessing the Risk of Electrofishing Mortality and Sublethal Effects of Freshwater Mussels. NC Wildlife Resources Commission. 7/04-6/05, \$110,000.

Levine, JF, Bogan, A, Propagation of Freshwater Mussels for Release Into North Carolina Waters. NC Dept. of Transportation. 7/04-6/06, \$248,000 (Extension/Outreach).

Levine, JF, Shivappa, R, Corsin, F, Harms, C, Law, M., Stoskopf M, Lewbart G, Guy J, Establishment of an Aquatic Animal Biosecurity Laboratory. NC Biotechnology Center, 3/04/-8/05, \$202,000 (Equipment/Facilities Grant).

Levine, JF, Linder K. Web-based Information Resource and Training Scenario for Public Health Preparedness. NC Dept. Health/CDC. 2/1/04-/31/04, \$115,000 (Extension/Outreach).

Levine, JF, Corsin, F, Shivappa, R, Guy, J, Law M, Harms, C, Lewbart G, Bakal, R, Whey K. Prevention and Control of Spring Viremia of Carp by Accurate Diagnosis and Biocontrol, USDA/ NRI/ARS. 9/03-8/05, \$115,000.

Levine, JF, M. Raley, A. Bogan. Genetic Characterization of the Genus *Alasmidonta* in NC to Facilitate Accurate Environmental Impact Assessments. NC Dept. of Transportation. 9/03-6/06, \$ 97,424.

Levine, JF, Devine H, Gebreyes, W. Showers W, Shea. D. Tracking the Source of Enteric

- Pathogens in Surface Waters. USDA CSREES/NRI. 10/03-9/06, \$449,968.
- Levine, JF, Bogan A, Shea D, Cope G, Eggleston D, Gregory J. A Comparison of the Impacts of Culverts Versus Bridges on Stream Habitat and Aquatic Fauna. NC Dept. of Transportation. 7/03-12/05, \$483,449.
- Levine, JF, Lewis T, Shea D, Showers W, Bogan A. Bivalves as monitors in the Neuse River and Estuary. US EPA 9/02-8/04, \$32,999.
- Levine, JF. Practical Approaches for the Rapid Detection of Foreign Livestock Diseases. NCSU-DELTA, 1/02-6/02, \$32,022 (Teaching).
- Joens, L, Gerber G, Saif L, Levine JF. Enteric Pathogens in Oysters. USDA /NRI CSREES Epidemiologic Approaches to Food Safety, 11/01-10/04, \$1,100,000.
- Levine, JF. Development of Outreach Materials in Support of the North Carolina Freshwater Mussel Conservation Partnership, 1/01-12/01, \$19,255 (Extension/Outreach).
- Levine JF, Bogan A, Pollock K, Devine H. Distribution of Freshwater Mussel Populations in Relationship to Crossing Structures. NC Department of Transportation, 7/00-6/02, \$182,710.
- Levine JF, Cope G, Stoskopf M, Bogan A., Gustafson L, Showers B, Shea D. Assessment of the Impact of Highway Runoff on the Health of Freshwater Mussels. NC Department of Transportation, 7/00-6/02, \$235,651.
- Stoskopf M, Nutter F, Levine JF. Modeling Feral Cat control Using Population Viability and Decision Analyses. Morris Animal Foundation, 6/00-5/01, \$30,264.
- Law JM, Levine JF, Dykstra M. Defining the Role Harmful Algal Blooms in the Development of Skin Lesions in Coastal North Carolina Fish. The Centers for Disease Control and Prevention. 8/00-7/01, \$95,638.
- Law JM, Levine JF. Pathogenesis of Ulcerative Dermatitis and Myositis in Coastal North Carolina Fish. NCDENR Division of Water Quality, 12/99-11/00, \$160,209.
- Levine JF, Bogan A, Cope G. Closed Recirculating System for Freshwater Mussel propagation. US Fish and Wildlife Service, 1/99-9/01, \$30,000 (Facilities grant).
- Levine JF, Bogan A, Cope G. Closed Recirculating System for Freshwater Mussel Propagation: supplemental award. US Fish and Wildlife Service, 1/99-9/01, \$10,324. (Facilities grant).
- Levine JF. Development of An Algal Culture System for Feeding Captive Raised Freshwater mussels. State of North Carolina (CVM), 4/99-6/99, \$14,800. (Facilities grant).
- Bitner J, Levine JF (Project Coordinator). Wilson Bay Water Quality Initiative. City of Jacksonville/State Clean Water Management Trust Fund, 7/99-6/02, \$716,780. (Extension/Outreach Grant).

- Hopkins B, Levine JF. Sturgeon City Site Assessment. EPA Brownfield Program, 1/99-12/99, \$48,000 (Extension/Outreach grant).
- Roomer J, Timm W, Levine JF, Hargett, G. Promotion of the Sturgeon City Waterfront and Downtown Restoration Project In Jacksonville, North Carolina NC Division of Tourism, Film, and Sports Development, 1/99-12/99, \$25,000 (Extension/Outreach Grant).
- Stoskopf PI, Levine JF, Nutter F: Population Dynamics in Neutered vs. Intact Feral Cat Colonies. Morris Animal Foundation, 1998/99, \$53,090.
- Stoskopf M, Levine JF, Nutter F. Population Dynamics in Neutered and Intact Feral Cat Colonies. William and Charlotte Parks Foundation, 1997/1998, \$20,000.
- Levine JF. Seasonal Distribution of *Perkinsus marinus* in Oysters Grown Using Three Culture Techniques in Onslow County, NC, Onslow County Onslow County. 7/96-6/98, \$26,376.
- Vaden, S, Giger U, Littman MP, Williams DA, Levine JF, Sellon RK, Dambach DM, Spaulding KA, Berry CR, VanCamp SD. Mode of Inheritance and Method for Early Detection of Protein Losing Enteropathy and Nephropathy in Soft Coated Wheaten. American Kennel Club Canine Health Foundation. 96-98, \$140,939.
- Levine JF. The utility of monitoring the water column for the presence of oyster larvae to accurately time the placement of oyster seed collectors. State of NC (CVM), 7/96-6/98, \$19,607.
- Levine JF. Health Survey of North Carolina Clam Populations. NCDEHNR Division of Marine Fisheries NCDEHNR Division of Marine Fisheries, 9/96-6/97, \$14,892.
- Levine JF. Distribution of *Perkinsus marinus* in Oyster Gardens. NCDEHNR Division of Marine Fisheries, 7/95-/96, \$7,500.
- Levine JF. Reservoirs Supporting the Maintenance of *Borrelia burgdorferi* at a Suburban Site in Raleigh, North Carolina. NCDEHNR Division of Communicable Diseases, 7/95-6/96, \$12,000.
- Levine JF. Isolation of *Borrelia* from *Amblyomma americanum* NCDEHNR Division of Communicable Diseases, 7/95-6/96, \$3,000.
- Levine JF. Occurrence of *Borrelia burgdorferi* in Rodents at Three Springs School, Chatham Co., NC DEHNR Division of Communicable Dis., 7/94-6/95, \$13,500.
- Levine JF, Apperson C. Dynamics of tick-borne *Borrelia burgdorferi* Transmission in North Carolina. Centers for Disease Control and Prevention/ Virginia Dept. of Public Health, 93/94, (Renewal) \$69,736.
- Levine JF. Isolation of *Perkinsus marinus* from North Carolina Oysters. NCDEHNR Division of Marine Fisheries, 94/95, \$7,500.

- Levine JF. Stress protein production by the Eastern Oyster. NCDEHNR, Division of Marine Fisheries, 92/93, \$6,000.
- Levine JF, Apperson C. Epidemiology of Lyme disease on the Camp Lejeune Marine Corps Base. United States Marine Corps. Renewal, 92/93, (Renewal) \$10,947.
- Levine JF, Apperson C. Epidemiology of Lyme disease on the Camp Lejeune Marine Corps Base. United States Marine Corps. Renewal. 92/93, (Renewal, suppl. \$10,891).
- Levine JF, Apperson C. Dynamics of tick-borne *Borrelia burgdorferi* transmission in North Carolina. Centers for Disease Control and Prevention/Virginia Dept. of Public Health. 92/93, (Renewal) \$73,860.
- Levine JF, Apperson C. Epidemiology of Lyme Disease on the Camp Lejeune Marine Corps Base. United States Marine Corps, 92/93, (Renewal) \$69,757.
- Levine JF, Apperson C. Epidemiology of Lyme Disease on the Camp Lejeune Marine Corps Base. United States Marine Corps. Renewal, 91/92, (Renewal) \$87,885.
- Levine JF. Analysis of tick and serum samples from Land Between the Lakes. Tennessee Valley Authority, 91/95, \$10,000.
- Levine JF (PI). Binational Shellfish Initiative, Florence Gould Foundation, 91/96, \$51,450.
- Levine JF, Apperson C. Dynamics of Tick-borne *Borrelia burgdorferi* Transmission in North Carolina. Centers for Disease Control/ Virginia Department of Public Health/ Subcontract, 91/92, \$70,292.
- Levine JF, Kennedy-Stoskopf S. Cytokine Activity in the Eastern Oyster, a Possible Immunoregulatory Response to Protozoal Infections. State of North Carolina, 7/91-6/92, \$14,590.
- Levine JF. Kennedy-Stoskopf S. A Maintenance System for Facilitating Biomedical Studies with Oysters. North Carolina Biotechnology Center, 91/92, \$58,446. (Facilities Grant).
- Levine JF. Seasonal Distribution of *Haplosporidium nelsoni* in the Eastern oyster *Crassostrea virginica* in Coastal North Carolina. State of North Carolina, 7/91-6/92, (Renewal) \$10,259.
- Levine JF. Seasonal Distribution of *Haplosporidium nelsoni* in the Eastern oyster *Crassostrea virginica* in coastal North Carolina. State of North Carolina, 7/91-6/92, (Renewal) \$6,000.
- Levine JF. Seasonal distribution of *Haplosporidium nelsoni* in the Eastern Oyster *Crassostrea virginica* in Coastal North Carolina. State of North Carolina, 90/91, \$14,812.
- Levine JF, Apperson C. Epidemiology of Lyme Disease on the Camp Lejeune Marine Corps

- Base. United States Marine Corps, 90/91, \$21,792.
- Levine JF, Apperson C. Studies to Determine the Tick Vector Species Responsible for Transmission of Lyme disease Spirochetes in the Southern United States. Centers for disease control and Prevention. 90/91, \$50,000, (Subcontract \$25,000).
- Sonenshine D, Levine JF. Antibodies to *Borrelia burgdorferi* in Serum Collected from White-tailed deer in Virginia. Virginia Department of Health, (Renewal), 90/91, (Subcontract \$2,000).
- Levine JF. Antibodies to *Borrelia burgdorferi* Serum Collected from White-tailed deer in Virginia. Virginia Department of Health, 89/90, \$2,000.
- Levine JF. College of Veterinary Medicine Oyster Facility. North Carolina Biotechnology Center, 90/91, \$25,000. (Facilities Grant).
- Levine JF. Distribution of *Haplosporidium nelsoni* in oysters in coastal North Carolina. North Carolina Division of Marine Fisheries, 90/91, (Renewal) \$5,000.
- Levine JF. Distribution of *Haplosporidium nelsoni* in oysters in coastal North Carolina. North Carolina Division of Marine Fisheries, 89/91, \$4,000.
- Riggs S. Environmental Quality Survey of Kennedy Creek and Adjacent Portions of the Lower Tar and Pamlico Rivers. Pamlico River Task Force. 1989/1991. \$93,819. Principal Investigator Subcontract, East Carolina University. Affect of heavy metals on finfish in Kennedy Creek, 89/90, (Subcontract \$13,040).
- Levine JF, Dykstra M. North Carolina Ulcerative Disease Research. North Carolina Division of Marine Fisheries, 88/89, \$75,000 (Subcontract \$36,196).
- Breitschwerdt E, Levy M, Levine JF. Early Acute Phase Diagnosis of Ehrlichiosis and Rocky Mountain Spotted Fever in Dogs. State of North Carolina, 7/89-6/90, \$13,419.
- Breitschwerdt E, Levy M, Levine JF. Investigation of a Possible Mechanism Leading to Gammopathies and Other Altered Immunological States in Canine Ehrlichiosis. State of North Carolina, 7/88-6/90, \$14,688.
- Levine JF, Levy M. Vector Competence of Arthropods for Transmission of *Ehrlichia risticii*. Morris Animal Foundation, 1/88-12/88, \$18,000.
- Breitschwerdt E, Levy M, Levine JF. Canine Ehrlichiosis in North Carolina; a new zoonosis. State of North Carolina, 7/88-6/89, \$13,455.
- Levine JF. An Integrated Database Program for Documentation of Ulcerative Syndrome. Florida Department of Environmental Regulation, 1988, (Renewal) \$12,169
- Levine JF, Sonenshine D. Lyme Disease in Virginia and North Carolina. North Carolina Division of Communicable Diseases, 87/88, \$10,000.

- Levine JF. Enzyme-linked Immunosorbant Assay for the Detection of *Borrelia burgdorferi* in Ticks. State of North Carolina, 7/87-6/88, (Renewal) \$1,350.
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- Levine JF, 2004: Aquatic Animal Epidemiology and Conservation Genomics http://www.ncsu.edu/project/aaecg_lab
- Trimpey D, Levine JF, Laubisch M. 2005: Food Safety Research and Response Network <http://www.fsrrn.net> (off-line)
- Trimpey, D., Levine JF. 2006. International Society for Aquatic Animal Epidemiology <http://www.isaaepi.org> (off-line)
- Trimpey D, Levine JF, Laubisch M, Byerly, D. 2007. Revision Food Safety Research and Response Network (off-line) <http://www.fsrrn.net>
- Trimpey D, Levine, JF. 2010. Sci-blast. <http://www.sciblast.org/> (program inactive)

Software Developed

Levine, J.F., Lee, L.C. 1987. Ulcerative Disease Regional Data Base Master Tutorial. Florida Department of Environmental Regulation.

Other Contributions

Levine, JF, 2008. NC Alumni Magazine, Talking Trash, Photo of Wilson Bay Spring 2008 issue.

Levine, JF, 1996. Bird of Day by Night Cover Artwork for Journal of the American Veterinary Medical Association May 15, Vol. 208.

Levine, JF. Hanlon S, Bogan, 2001. A. The Life Cycle of Freshwater Mussels (Poster).

Levine JF, Hanlon S, 2001. Freshwater mussels: A learning resource and activity book.

Levine JF, Hanlon S, 2001. Freshwater mussels of North Carolina (Poster).

Levine JF. Bulletin. NCSU August, 2001. Raccoon Photograph. NC Carolina Wildlife.

Teaching

North Carolina State University

Undergraduate Curriculum

Catastrophic Earth- MEA 493-Section 601(asynchronous, on-line) 2020-present

Graduate Curriculum

Seminar: Creating a Powerful Presentation- MEA 601/801 2018-present

Veterinary Curriculum

Small group problem solving in veterinary practice-VMP 922	2015-2016
Infection and Immunity 2 VMP 920	2013
Veterinary epidemiology rotation VMP 979	2013-2016
Veterinary Epidemiology and Public Health VMP 945	2013-2016
Introduction to Clinical problem solving in Veterinary Practice (Course name changed, from Evidence Based Medicine)	2011-2013
Careers in Veterinary Medicine VMC 910 (lecturer)	2006-2008
Emergency Animal Health and Public Health Programs VMP 991z (Course leader)	2005-2008
Public Health and Food Safety VMF 958	2003-2004
Veterinary International Programs Selective	2002, 2004
Evidence-based medicine: Clinical problem solving in Veterinary Practice VMP 912	1998-2011
Aquaculture Selective	1998-2005,2009,2011, 2013, 2015
Veterinary Public Health and Hygiene VMM 844 (Course Leader 1986-1994)	1984-1999
Applied Epidemiology Rotation VMM 879	1984-1999

(Course leader 1994-1999)

Veterinary Curriculum Course Development

Development of new Critical Thinking class VMB 912	2014
Revision of VMP 912 to VMP 922 – Small group problem solving in veterinary practice	2014
Reorganization of VMP 945: Epidemiology and Public Health	2011,2012
Reorganization of VMP 958:	2011
Developed Emergency Animal Health and Public Health Programs Selective VMP 991z (Course leader)	2005
Participated in Redesign of VMF 958 Public Health and Food Safety	2003
Participated in the Redesign of VMF 945	2003
Development of Evidence-Based Medicine, Clinical Problem Solving in Veterinary Practice VMF 912	1998
Reorganization of Epidemiology Component of the curriculum development of three new epidemiology courses	1997, 1998
Development of an Independent Study Selective	1997
Development of Aquaculture Selective	1997
Development of Integrated Problem Solving Courses for Curriculum (Ad Hoc Committee Chair)	1997
Proposed curricular changes for the first three years of the Veterinary curriculum.	1996
Assisted with the development of three selective course for the Veterinary curriculum	1996
Reorganization of VMM 879 into a 2-week rotation	1996
Reorganization of VMM 879 to include alternative forms of student assessment.	1995
Reorganization of VMM 844 to include Distinct Epidemiology and Public Health Sections.	1990
Reorganization of VMM 844 to include group problem solving sessions, report preparation, and oral debate.	1990
Introduction of the use of computers into VMM 879	1986
Pew National Veterinary Medical Education Program Steering Committee. Participated in the development of the committee's suggested changes for curriculum reorganization	1986
Introduction of the use of computers into VMM 879	1986

CVM Focus Area Mentor Program

Alexandra Sack	2014-2016
Casey Williams	2012-2013
Regina Lawson	2010-2011
Rachel Acciacca	2009

CVM College Mentor Program

Catharine Johnson, Erik Wegner-Clemmons	2015-2016
Richard Chesnutt, Andeliene Croce	2014-2016
Christine Parks/Catherine Johnson	2013-2015

Grace Oldfield	2012-2014
Rebecca Jones, Joseph Maltos	2010-2015
Anna Allen	2006/2007
Sheba Robinson, Kelly Maxwell	2005/2006
Rebecca Robbins, Jesi Hamilton	2004/2005
Christin Dean	2003/2004
Jeanetta Morris	2002/2003
Sarah Faircloth	2001/2002
Megan Newcome	2000/2001
Jess Pfohl	1999/2000
Rachel McNeil, Rachel Davis	1998/1999
Megan Tayloe , Rachel Davis	1997/1998
Debra Bigsby, Megan Tayloe	1996/1997
Amy Pruitt, Mitch Troutman	1994-1996
Erin Flynn, Tonya Tanner, Laurie Lang, Howard Chappell,	1992-1994
Jeffrey Burroughs, Howard Chappell, Laurie Lang	1991/1992

AVMA Mentoring Program 2004

Graduate Instruction

North Carolina State University

MEAS 601/801: Graduate Seminar: Creating A Powerful Presentation	2018-present
VPH 760 Molecular Technologies for Epidemiologic Investigation (course leader)	2015 2008-2009
CBS 595/VPH 649 Issues in Preventive Medicine and Public Health (F,S)	2014-2016
CBS 565 (section 1) Fundamentals of Biomedical Science	2013-2019
VPH 713 Zoonoses and Public Health	2008
CBS 595/VPH 650 PopMed Forum (F,S)	2008-2016
VPH 675 Supervised Public Health Research	2007-2016
FS 520 Pre-harvest Food-Safety (biannually since 2009)	2001-2012
VMF 610a/810a: Special Problems in Population Medicine PoPMed Forum (F,S) (course leader)	1998-2007
VMF 544: Advanced Analytic Epidemiology	1999
VMS 590 Special Problems in Epidemiology	1997
VMS 580 Veterinary Production Epidemiology	1996
VMS 590m Special Problems in Population Medicine (Course leader)	1995-
VMS 590 Special Problems: Use of Computers in Biomedical Science	1994
VMS 590 Veterinary Production Epidemiology	1993
VMS 695 Seminar in Veterinary Microbiology (Course Leader)	1987-1989
VMS 554 Principles of Epidemiology	1986,1988
ENT 690 Seminar in Entomology ENT 690 (Co-leader)	1986

Graduate Course /Program Development

UNC Chapel Hill Gillings School of Public Health/NCSU CVM	2012-2017
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Epidemiology Concentration area (co-Coordinator)	
Organization of the establishment of a cooperative MPH Veterinary concentration area with UNC Chapel Hill Gillings School of Public Health	2011-2012
VPH 649 Issues in Preventive Medicine and Public Health	2008
VPH 675 Supervised Public Health Research (Prev. VPH 693)	2008
VPH 713 Zoonoses and Public Health (new course for 2008)	2007
VPH 650 PopMED Forum	2007
VPH 693 Supervised Public Health Research	2007
Conceived, developed and garnered approval of MVPH program	2004
Veterinary Public Health (1 st class fall 2004)(In development)	
Reorganized Professional Graduate Curriculum Courses in Epidemiology	1997
Reorganized VMS 654: Epidemiology of Infectious Diseases of International Importance	1996
Established POPMED Forum as a special problems course beginning fall	1995
Reorganization of Population Medicine Concentration Area Course Offerings.	1995
Reorganization of Population Medicine Concentration Course Offerings	1994
Assisted with the development of graduate course in production medicine	1990
Assisted with the development of two graduate epidemiology courses.	1985
Duke University	
One Health training program	2015-present
The Ohio State University	
VPM 7722 Seafood Lectures	2007-2015
UNC Chapel Hill, School of Public Health	
EPI 756 Control of infectious diseases in developing countries	2008-2011
Harvard University	
<u>Graduate Courses</u>	
Public Health Entomology (Teaching assistant)	1983
<u>Technical Training</u>	
Animal Technician Certification Course (Course Coordinator)	1982
<i>Graduate Program Development/Coordination</i>	
<i>College of Veterinary Medicine, North Carolina State University</i>	
UNC Gilling's School of Global Public Health/NCSU CVM	2012-2017

MPH Concentration area in Veterinary Epidemiology
 (Co-creator, development and coordinator) 2003-2012
 Masters of Veterinary Public Health Program (Director) 2001-2012
 Masters of Veterinary Public Health Program
 (Initiator, steering committee chair, interim coordinator)

Population Medicine Program

Graduate program concentration area leader 1994-2001
 (14 graduate students)
 Program Leader Population Medicine Program 1989-1994
 Population Medicine Steering Committee 1988-1989

Graduate Student advisees

Graduate Student Committees (Full member of the graduate faculty)

Student	Role	Program	Degree	Years
Jordan Richard	Comm.	Fisheries and Wildlife, Univ. Wis.	PhD	2021-present
William Reckling	Comm.	Geospatial Analytics	PhD	2019-present
Maria González	Comm.	Entomology	PhD	2019-present
Andrew Sanders	Comm.	Applied Ecology	PhD	2018-2019
Michael Walter	Chair	Fisheries, Wildlife, Conservation Bio.	MS	2017-2020
Anakala Popp	Comm.	Fisheries, Wildlife, Conservation Bio.	MS	2015-2017
Zachary Devries	Comm.	Entomology	PhD	2015-2017
Michael Fisher	Comm.	Entomology	PhD	2015-2017
Nathan Lyons	Comm.	Marine Earth Atmospheric Sci.	PhD	2013-2015
Kruti Ravaliya	Comm.	Food Science	MS	2011-2013
Raphael Labens	Comm.	Comparative Biomedical Sciences	PhD	2011-2013
Walt Gurley	Comm.	Marine, Earth, Atmospheric Sci.	MS	2010-2011

Tom Fox	Chair	Fisheries, Wildlife, Conserv. Bio.	MS	2009-2014
Rena Greiner	Chair	Fisheries, Wildlife, Conserv. Bio.	MS	2008-2011
Jennifer Hurley- Sanders	Co-chair	Fisheries, Wildlife, Conserv. Bio.	PhD	2007-2014
Brooke Whitney	Comm.	Food Science	PhD	2007-2009
Hari Dwivedi	Comm.	Comparative Biomedical Sci.	PhD	2007-2009
Michael Smith	Comm.	Entomology	PhD	2006-2009
Michael Bercz	Comm.	Comparative Biomedical Sciences	PhD	2006-2010
Stephanie Drake	Comm.	Food Science	PhD	2005-2008
Margaret Blanchard	Comm.	Parks and Recreation	MS	2006-2008
Heather Henson- Ramsey	Comm.	Comparative Biomedical Sciences	PhD	2002-2007
Sunny Snider	Comm.	Zoology	PhD	2004-2006
John Bucci	Comm.	Marine, Earth, Atmospheric Sci.	PhD	2004-2006
Otis Miller	Comm.	Comparative Biomedical Sciences	PhD	2004-2007
Jennifer Vandarpluym	Comm.	Marine, Earth Atmospheric Sci.	MS	2004-2006
Yan Yan Huang	Comm.	Comparative Biomedical Sciences	PhD	2003-2007
Laura Jackson	Comm.	UNC Dept. Geography	PhD	2002-2005
Leroy Humphries	Co-chair	Comparative Biomedical Sciences	MS	2001-2006
Wade Lehman	Comm.	Toxicology	PhD	2000-2006

Beth Anderson	Comm.	Parks and Recreat.	MS	2000-2002
Reverie Alvarez	Chair	Comparative Biomedical Sciences	PhD	1999-2002
Andrea Johnson	Co-chair	Comparative Biomedical Sciences	PhD	1998-2004
Lori Gustafson	Co-chair	Comparative Biomedical Sciences	PhD	1998-2002
Jiraporn Suksawat	Comm.	Comparative Biomedical Sciences	PhD	1997-2000
Felicia Nutter	Co-chair	Comparative Biomedical Sciences	PhD	1995-2006
Marta Bull	Comm.	Immunology	MS	1997-1999
Tony Faucette	Comm.	Comparative Biomedical Sciences	MS	1994-1997
Jeff Ryan	Co-chair	Entomology	PhD	1993-1996
Ann Colbert	Comm.	Comparative Biomedical Sciences	MS	1993-1996
John Roberts	Co-chair	Comparative Biomedical Sciences	PhD	1992-1997
John Ouellette	Co-chair	Entomology	MS	1992-1997
Doug Norris	Co-chair	Entomology	MS	1991-1993
Peter Farin	Comm.	Comparative Biomedical Sciences	PhD	1991-1996
Russell Greene	Comm.	Comparative Biomedical Sciences	PhD	1986-1988

Other non-thesis students

Melissa Miles	Comm.	Landscape Architecture	MS	2000-2001
Sam Taylor	Comm.	Parks and Recreation	MS	2003-2004
Edward Shipman	Comm.	Parks and Recreation	MS	2005-2006

Climate Change and Society

Cam Baillie	MS	2020-present
Veronika Maynard-Simone	MS	2020-present
Nichole Esch	MS	2020-present
Max Cawley	MS	2020-present
Susanne Cooper	MS	2020-present
Ryan Eldridge	MS	2020-present
Kimberly Kirkhart	MS	2020-present
Mark Massing	MS	2020-present
Daniel Pantaleo	MS	2020-present
Jane Allen	MS	2019-2020
Jared Belvin	MS	2019-2020
Tracy DiTucci	MS	2019-present
David Glas	MS	2019-2020
Philip Martin	MS	2019-present
Casey Nelson	MS	2019-2020t
Madison Teeter	MS	2019-2020
Stephanie Kelly	MS	2018-present
Aaron Burkhart	MS	2018-2019
Fatu Morgan	MS	2018-2019
Jonathan Chan	MS	2018-2019
Albana Berisha	MS	2018-2019
Daniel Spruill	MS	2018-2019
Ashlyn Shore	MS	2018-2019
Robert Bennett	MS	2018-2019

Climate Adaptation Certificate

Paige Price	Certificate	2020-present
Katie Peek	Certificate	2020-present
Rebecca Evans	Certificate	2020-present
Zachary Tunstall	Certificate	2018-present

MPH Veterinary Concentration Areas UNC Gillings School of Global Public Health/ NCSU CVM

Elizabeth Anne Williams	MPH	2013-2015
Jenna Gettings	MPH	2014-2016
Adam Beard	MPH	2014-2016

MVPH/Non Thesis Graduate Students

Salvador Nassri (Mentor)	MVPH	2006-2009
Kristin Agresta (Mentor)	MVPH	2006-2009
Margaret Gruen (Mentor)	MVPH	2005-2008
Cyle Richard (Mentor)	MVPH	2006-2008
Madonna Higgins (Mentor)	MVPH	2006-2008
Barbara Porter-Spalding (Mentor)	MVPH	2000-2007

Shannon Kozlownic (Mentor)	MVPH	2003-2006
Daniel Wakefield (Mentor)	MVPH	2005-2006
Mickey Moppin (Mentor)	MVPH	2004-2005

External Graduate Committee Reviewer

External Reviewer for PhD, Christopher Goode University Guelph		2006
External Reviewer for PhD thesis and defense, Amanda Fine Michigan State University		2006
External reviewer for PhD thesis and defense Nina Hahn, Virginia Polytechnic Institute, Blacksburg Virginia		1990

Graduate College Representative

Annette Murphy, Toxicology (MS)		2002
James Christopher Taylor, Fisheries/Wildlife (PhD)		2001-2004
Hyejin Ko, Statistics (MS)		1999
Jose De Sousa. Animal Science (PhD)		1996-1999
Liang Ying-hua. Immunology. (PhD)		1996-1999
Yang-Kwang Fan, Dept. Animal Science (PhD)		1994-1995

Post-doctoral Student Advisees

North Carolina State University

Bidhan Dhar		2019-present
Scott Salger		2013-2015
Karina Ballester		2008-2011
John Bucci		2007-2009
Xin Li		2005-2006
Mike Holliman		2004-2006
Raghunath Shivappa		2003-2007
Patricia Mascerelli		2003-2005
Flavio Corsin (NACA Extension Agent)		2003-2004
Morgan Raley		2001-2006
Michael Levin (CDC Researcher)		1992-1994
Claire Tirard (Research)		1991-1993
Kazuhide Nakagaki (Lecturer Nippon Veterinary and Animal Science University)		1991
William Irby (Assistant Professor Georgia Southern University)		1988

NC College of Veterinary Medicine Residency Program Advisees

Cheryl Goh	Pathology	2012-2013
Karen Wolf	Zoo animal/Wildlife medicine	2005-2008
Allision Tuttle	Zoo animal/Wildlife medicine	2004-2007
Robert McClean	Zoo animal/Wildlife medicine	2003-2006
Tera Kelly	Zoo animal/Wildlife medicine	2002-2005

Pam Govett	Zoo animal/Wildlife medicine	2001-2004
Gladys Kalema	Zoo animal/Wildlife medicine	2000-2003
Scott Larsen	Zoo animal/Wildlife medicine	1999-2002
Beth Chittuck	Zoo animal/Wildlife medicine	1998-2000
Kurt Slackey	Zoo animal/Wildlife medicine	1997-1999
Felicia Nutter	Zoo animal/Wildlife medicine	1996-1998
Andy Stamper	Zoo animal/Wildlife medicine	1995-1997
Marie Toezlowski	Zoo animal/Wildlife medicine	1994-1996
Ted Miashima	Zoo Animal/Wildlife medicine	1993-1995
Craig Harmes	Zoo Animal/Wildlife medicine	1992-1994
Lucy Spellman	Zoo Animal/Wildlife medicine	1991-1994
Julie Levy	Internal Medicine	1991-1993
Erica Honore	Equine Medicine	1990-1993

Additional Student Project Mentoring

Algae culture and mussel filtration, Jimmy Spore,	2019
Microbial flora of <i>Corbicula fluminea</i> , Nicholas DeCastro	2016
Accuracy of water quality test kits, Susie Masecar	2016
Effect of low pH on Magnificent Ramshorn egg clutch development Jessica Heinz	2013
Vitamin D Absorption in the Magnificent Ramshorn, Richard Chesnutt	2013
Mussel In Vitro cell culture, Jeff Lambert	2011
Mussel In Vitro Cell culture, Brian Lincoln	2011
Veterinary/Physician exam and diagnostic costs Regina Lawson	2010
Pathogens in Frozen seafood, Mellisa Mitchell	2010
16s Sequence Analysis of Cellulose Degradier Isolates from an Invasive Mussel Species, Tony Szempruch	2007
Honors research, <i>Salmonella</i> surveillance in the VTH: Jared Milrad	2005
Merck Scholars program, Maria Serano, Fish attachment and freshwater mussel metamorphosis	2005
Merck Scholars program, Phil McGready, Infection control audits	2005
Veterinary Student Public Health Corps (faculty advisor)	2004-2016
Hope Holden, Comparison of human medical and veterinary medical charges for medical services.	1995
Honors Research, Faith Renee Foster, Temporal distribution of rodents infected with <i>Borrelia burgdorferi</i> in Raleigh, NC	1995
Honors Research, Jennifer Gemma, Antigenic variation in <i>Borrelia anserina</i>	1993
Innovations in Health Proposal -- John Dennis	1990
Designed and initiated new volunteer program for freshman students Videotaping of students performing phys. exam.	1990
Seminar advisor for veterinary students (1-3/year)	1988-2000

University of North Carolina, Chapel Hill

Master's Project Reader, Tyann Blessington, MPH Program	2019
Adjunct advisor Terressa Klimko, thesis paper University of North Carolina at Chapel Hill, SPH	1989
Adjunct advisor Tom Must, master thesis paper University of North Carolina at Chapel Hill, SPH	1985

Invited Presentations and Continuing Education Sessions

Climate Change Agriculture, Mitigation and Adaptation (Food Animal)
College of Veterinary Medicine, August 2020

Surviving the Anthropocene
Towards a Better Planet Symposium, NC State University, June 2019

Aquaculture Promise, False Promise
Raleigh Aquarium Society, Raleigh, NC 2019

Department Climate. NC State Department Heads Training Workshop, Office of Faculty
Development August 2018.

NC State, Center for Marine Sciences and Technology: Partnerships in Research,
Extension and Education. Elizabeth City State University, Elizabeth City, NC
March 2018.

Marine, Earth and Atmospheric Sciences, Instructional and Research Programs,
LEMAR Laboratoire DES Sciences De L'Environnement Marin, Brest, France
September, 2017

Marine Instructional and Research Programs, Department of Marine, Earth and
Atmospheric Sciences, IFREMER, Argenton Research Station, Argenton France,
September 2017.

Marine, Earth and Atmospheric Sciences, Instructional and Research Programs,
Laboratoire d' Océanographie Physique et Spatiale, Brest, France September, 2017.

Marine, and Instructional Research Program, Department of Marine, Earth and
Atmospheric Sciences. Center for Marine Resource Studies, School for Field
Studies, South Caicos, Turks and Caicos Islands. June 2017.

Research Funding for Sciences and Engineering
Building Future Faculty Program, NC State University, April 2016

Zoonoses: Protecting yourself and Your Staff
Boeringer-Ingelheim Veterinary Technician Annual Conference
Raleigh, NC, April 2015

Freshwater Invertebrates: Veterinary Diagnostics and Conservation
NCSU Invertebrate Club, Raleigh, NC, October 2014

Native Unionids, Their Status and Efforts to Mitigate their Decline
Roots and Shoots, Raleigh, NC, October 2014

Freshwater Mussels and Freshwater Snails: Veterinary Diagnostics and Conservation
Raleigh Aquarium Society, Raleigh, NC, November 2013

Involving the Local Community in Rabies Prevention: Rabies vaccination Clinics
Merial Rabies Symposium, Raleigh, NC, September 2012.

Shellfish mariculture, Enteric Pathogens in Shellfish Workshop, Lahas, Puerto Rico, June
2010.

Distribution of Freshwater Bivalves-Freshwater Mussel Biology
Weymouth Woods Sandhills Nature Preserve, Southern Pines, NC, March 2009

Riesgos de Salud De Comer Ostras O Almejas Crudas (Health Hazards Associated with
Eating Raw Oysters) Enteric Pathogens In Shellfish Workshop, Puerto Rico, September.
2009.

Biosecurity to Prevent the Introduction of Disease Problems into Aquaculture Facilities
Fish Health Management Workshop, Morehead City, October, 2008.

Biosecurity to Prevent the Introduction of Disease Problems into Aquaculture Farms
Fish Health Management Workshop, Raleigh, NC, August 2007.

Food Safety Research and Response Network
American Veterinary Medical Association, Washington DC, July 2007.

Biosecurity to Prevent the Introduction of Disease Problems
Fish Health Management Workshop, Raleigh, July 2006.

Biosecurity to Prevent the Introduction of Disease Problems
Fish Health Management Workshop, Raleigh, July 2005.

Biosecurity in Aquaculture, NC Aquaculture Development Conference, Atlanta Beach,
NC, February 2005.

Food Safety Research and Response Network Cooperative Research Opportunities
US-EC Workshop on Innovative Technologies for Increasing Food Safety
In the Fork-to-Farm Chain. Brussels, Belgium, January 2005.

Biosecurity To Prevent The Introduction Of Disease Problems: Your Koi Farm
Fish Health Management Workshop Raleigh, NC July 2004

NCSU Master of Veterinary Public Health Program
American Veterinary Medical Association 141st Annual Convention
Philadelphia, July 2004

Koi Farm Biosecurity, North Carolina Koi and Water Garden Workshop
NC Koi and Water Garden Society, Raleigh, May 2004

Jacksonville's Wilson Bay Initiative: An ecosystem revitalized
Total Water Management Today and Tomorrow
ACEC/NC – PENC Environmental Conference, Raleigh, March 2004,

Aquatic Animal Production Systems: Food Safety and Security Short-Course Ft. Sam
Houston, Texas, Jan. 2004.

The First Day, Orientation for Graduate Teaching Assistants,
NCSU, Faculty Center for Teaching and Learning, Aug. 2003.

Pathogens associated with seafood, securing the safety of seafood. Food Safety and
Security Short-Course Ft. Sam Houston, Texas, Jan. 2003.

History of ISAAE: Biannual Meeting International Society for Aquatic Animal
Epidemiology, Vina Del Mar, Chile, November 2003.

Clean Water Mgmt. Trust Fund Board Meeting, Wilson Bay Restoration Effort,
October, 2003

Learning in a Technology Rich Environment (LITRE), LITRE, SACS Accreditation
Workshop, Lead facilitator & Group facilitator, Raleigh, April, 2003.

Commercial Fishing: Food Safety and Security Short-Course Ft. Sam Houston, Texas,
Jan. 2003

Aquaculture: Food Safety and Security Short-Course,
Ft. Sam Houston, Texas, Jan. 2003

Seafood Pathogens: Food Safety and Security Short-Course
Fort Sam Houston, Texas, Jan. 2003

Infection Control: Preventing Nosocomial Infections Equine and Food Animal
NC Veterinary Medical Conference, Research Triangle Park, November 2002

Epidemiologist's Perspective of Aquaculture American Veterinary Medical Association
139th Annual Convention, Nashville, TN 2002

Wilson Bay Water Quality Initiative: NC Aquaculture Conference Getting Started in
Shellfish Aquaculture, Atlantic Beach, NC Jan. 2002

Wilson Bay Keepers, The importance of this work, Jacksonville, July 2002

Freshwater Mussel Ecology: EcoFest, 2002, Progress Energy Harris Lake Park, April
2002

Wilson Bay Recovery State of the River Conference, May, 2002

Status of the Wilson Bay Restoration Effort Status of the River Conference, May, 2002

Restoration Progress in Wilson Bay, Onslow, Co. NC. Sturgeon City Advisory Board, January, 2002

Update: the Wilson Bay Water Quality Initiative. NC Aquaculture Conference, Shellfish Workshop, January, 2002

Wilson Bay Water Quality Initiative, NC, Restoration Accomplishments. Jacksonville City Council, December, 2002

International Society for Aquatic Animal Epidemiology
American Veterinary Medical Association 138th Annual
Convention, Boston, MA July 2001

Wilson Bay Water Quality Initiative, NC Aquaculture
Conference, Shellfish Workshop, January, 2001

Tick-Associated Zoonoses. SCI-LINK teacher training
Workshop. January 2000

Zoonoses: Minimizing the Risk of Exposure. 4th NCVMC
Research Triangle Park, November 1999

Infection Control: Preventing Nosocomial Infections
4th NCVMC Research Triangle Park, November 1999

Opportunities for International Study: CVM Student International
Club, March 1998.

Risk of Zoonotic Disease transmission to veterinary students
Raleigh, NC. NCSU Student Health Center, March 1998.

The Wilson Bay Initiative, City of Jacksonville City Council
Jacksonville, NC. October 1997.

Comparative Biomedical Science Research Activities at the CVM.
1997 NC State Bridge Symposium, Raleigh, October, 1997.

Careers in Veterinary Medicine. Sci-Link, Teacher Day
Raleigh, NC. March, 1997.

Bivalve research at the CVM. NC Shellfish Culture Workshop.
New Bern, NC. January 18, 1997.

Levine JF. Infection Control Programs. NC Veterinary Conference.
Research Triangle Park, NC. November, 1996.

College of Veterinary Medicine Teaching Effectiveness Workshop for House Officers and Graduate Students. Finding and Using Teaching Resources from The World Wide Web, Raleigh, NC. August 1996.

College of Veterinary Medicine Student Advisors Workshop The First Day: How to get off to a good start. Raleigh, NC August 1996.

Shellfish aquaculture: vision for North Carolina. JTP Clam Planting Workshop, Sea Level, NC. June.1995.

Lyme disease: An example of Human Health Affected by Human Decisions Sci-Link Teacher Day: Global Change. Raleigh, NC. March, 1995.

Environmental change: Lyme disease North Carolina Science Teachers Association Sci-Link Presentation, November 1994

Shellfish farming in France. JTP Clam Planting Workshop, New Bern, NC December,1993.

Epidemiology of Lyme disease in the Southeast. Lyme disease Symposium Marine Corp Base, Camp Lejeune, NC. July 1992.

Epidemiology of Lyme Disease. National Laboratory Training Network, Lyme disease, what makes it tick? Raleigh, NC- October, 1991.

Epidemiology of Lyme disease at Camp Lejeune. Marine Corps Base Camp Lejeune, Onslow NC, September, 1991.

Potential for stable *Borrelia burgdorferi* transmission in the southeastern United States. Virginia/Maryland Regional College of Veterinary medicine. Blacksburg, VA - June, 1990.

Ulcerative mycosis in Atlantic menhaden in the Tar-Pamlico Estuary. Division of Marine Fisheries/Governors Office Fish and Crab Research Priorities Meeting. New Bern, NC June, 1989.

Animal Pain and Distress Moderator. College of Veterinary Medicine Homecoming – Raleigh, NC. October, 1989.

Animal rights roundtable panelist. Animal welfare legislation and regulations. College of Veterinary Medicine Homecoming - Raleigh, NC. September, 1988.

The role of epidemiology in single species conservation biology. National Science Foundation Workshop on Single Species Conservation Biology. Front Royal, Virginia - November, 1988.

Epidemiology of ulcerative mycosis in the Pamlico River Estuary. Workshop on Fish Disease, Albermarle-Pamlico Estuarine Study/ Water Resources Research Institute.

Raleigh, North Carolina - September, 1987.

The ulcerative disease regional data base, an integrated data base program for documentation of ulcerative disease syndrome. St. Johns River Ulcerative Disease Initiative. Jacksonville, Florida - November, 1987.

Epidemiology of tick-borne Lyme disease in the southeastern United States. Land Between the Lakes (LBL) Tick Eradication Project. TVA, LBL, KY- June, 1986.

Epidemiology of ulcerative mycosis in the Pamlico River. St. Johns River Ulcerative Disease Initiative. Jacksonville, Florida - September, 1986.

Epidemiologic surveillance for ulcerative mycosis. Fairfield Harbor Symposium. New Bern, North Carolina - November, 1986.

Reading Clinical Journals. FAE interns and residents, College of Veterinary Medicine - September, 1986.

Tick-borne Lyme disease in the southeastern United States. North Carolina Mosquito Vector Control Association. Raleigh, North Carolina - November, 1986.

Cryptosporidiosis in free-ranging bobwhite quail in North Carolina. North Carolina Wildlife Commissioners. Raleigh, North Carolina - November, 1986.

Lyme disease in North Carolina. Dermatology Department, University of North Carolina, Chapel Hill, North Carolina - October, 1985.

Ticks and tick-borne pathogens of veterinary importance in North Carolina. Durham Kennel Club. Durham, North Carolina - May, 1985.

Lyme disease a tick-borne zoonosis. North Carolina Department of Entomology. Raleigh, North Carolina - September, 1984.

Food-borne enteric pathogens. USDA Teleconference: Food Safety and Inspection Service Continuing Education Program - September, 1984.

Lyme disease, a tick-borne zoonoses. College of Veterinary Medicine North Carolina State University. Dept. of Entomology, May, 1984.

K-12 Presentations/Classes

Streams, Lecture, Sturgeon City, Jacksonville, NC, On-line	2020
Streams, Lecture: 4th grade class, On-line	2020
Sturgeon City Science Explorers Day Science Program New Bridge Middle School, Jacksonville, NC	2018, 2019
NC State, MEAS, Geopaths High School Training Program	2018
College of Sciences State of the Sciences Open House (Hunt Library) Freshwater Mussels	2018
Sturgeon City Science Explorers Day Science Program	2014-2016

New Bridge Middle School, Jacksonville, NC	
Sturgeon City Science Explorers Day Science Program	2012
New Bridge Middle School, Jacksonville, NC	
Sturgeon City Science Explorers Day Science Program	2010
New Bridge Middle School, Jacksonville, NC	
Sturgeon City Science Explorers Day Science Program	2005-2008
New Bridge Middle School, Jacksonville, NC	
College of Veterinary Medicine Open House: Freshwater mussels	2002-2016
Sturgeon City Science Explorers Day long Science Program	2004
Davis Dr. Elementary School	2004
Sturgeon City Youth Leadership Science Institute	2003
Sturgeon City Science Explorers Day long Science Program	2002
Wilson Bay Science Explorers: Full day Program at CVM	2002
Sturgeon City Youth Leadership Science Institute	2002
Davis Dr. Elementary School	2002
Sturgeon City Youth Leadership Institute	2001
Careers in Veterinary Medicine College Tour	2000
Sturgeon City Youth Leadership Institute	2000
Introduction to <i>SCI-Blast</i> , <i>SCI-BLAST</i> workshop	2000
Introduction to the INTERNET, <i>SCI-BLAST</i> Workshop	2000
Sturgeon City Youth Leadership Institute	1999
Introduction to <i>SCI-Blast</i> , <i>SCI-BLAST</i> workshop	1999
Introduction to the INTERNET, <i>SCI-BLAST</i> Workshop	1998
Introduction to <i>SCI-Blast</i> , <i>SCI-BLAST</i> workshop	1998
Introduction to the INTERNET, <i>SCI-BLAST</i> Workshop	1997
Introduction to <i>SCI-Blast</i> , <i>SCI-BLAST</i> workshop	1997
NCDEHNR Farm Injury Project: Farm Safety, Zoonoses and Pets	1996
NCSU Summer Camp Comparative Aquatic Animal Anatomy and Physiology	1996
NCSU Summer Camp Sea Turtle Ecology: Turtle Hurtles	1995
CVM Program, NC Junior Science and Humanities Symposium	1995
NCSU Summer Camp Comparative Aquatic Animal Anatomy and Physiology	1995
Lincoln Heights School - The Food Chain, Pelican Island.	1995
Henry Adams Science Go-Round, The Food Chain, Pelican Island	1995
NCSU Summer Camp Comparative Aquatic Animal Anatomy and Physiology	1994
NCSU Summer Camp Sea Turtle Ecology: Turtle Hurtles	1994
NCSU Summer Camp Comparative Aquatic Animal Anatomy and Physiology	1993
Henry Adams Science Go-Round, Careers in Veterinary Medicine	1991-1994

**Mass Media Interviews, Notations, Articles Written About Laboratory
Other Research and Extension Activities (Selected examples since 1991)**

Research and extension program have been featured in numerous news articles and periodicals, and numerous interviews with local news media focused on tick-borne diseases, or the Wilson Bay Initiative, and freshwater mussel conservation

Rabies in North Carolina, NCSU Technician	2013
Nature Research Center Educational Video-Freshwater Mussels	2011
NC State: Feeding Natures Ability to Clean-up	2008
Carolina Business: Onslow County: The Ultimate Natural Playground	2006
Wake County News: Animal Center Implementing Control Measures	2006
Harvard Magazine: Oyster Environmentalists, Jan-Feb.	2005
NC State Alumni Magazine, Spring 2008, Talking Trash, Short Article On The Wilson Bay Initiative And Photo Credit.	
Results: NCSU GIS Key To Area Evacuation, AG Bioterror, Detection	2005
Results: NCSU Research And Graduate Studies Annual Report	2005
NCSU Bulletin: NCSU To Lead \$5 M Study, 18 March	2005
CVM: Magazine For The College Of Veterinary Medicine, Spring CVM Spearheads Food Safety Initiative	2005
Wake County News: PCB Report Public Comment	2004
Wildlife In North Carolina: Living With Mussels 68:8-15, November	2004
Wildlife in North Carolina: Bringing Back the Bay, 68:10-15, April	2004
Coast Watch, From Students to Sturgeon, Wilson Bay Revived	2004
North Carolina Naturalist: Of Bridges and Mussels, 11:7-10	2003
Landscape Architecture, Brownfield Park Plan Celebrates Bay Restoration, July	2002
The Daily News, Jacksonville, NC, Wilson Bay Makes Miraculous Return, 19 July	2002
NCSU Bulletin: Rapidly Developing Areas Seeing Increase in Number of Rabid Animals 24 August	2001
News And Observer, Bridges Over Troubled Water 12 August	2001
WTKF Moorhead City NC/WJNC Jacksonville NC: Wilson Bay Water Quality Initiative	2001
Southern City, Sturgeon City Creative Reuse for an Old Wastewater Treatment Plant	2000
The Daily News, Jacksonville, NC, Oysters May Be Pearl Of New River, 27 August	
NCSU: Alumni Magazine, Oyster House, CVM Scientists Aim For Disease-Resistant Shellfish Strains	1994
News and Observer, Washington Daily News, Lab. at NCSU May Help Oyster Industry Rebound, 3 November	1993
Washington Daily News, NC State Scientists Searching for Answers To Oyster's decline, 3 November	1993
The Carolinian, Veterinary Researchers Take Steps In States Oyster Harvests Season, 15 August	1992
Pamlico News, NCSU Researchers Investigating State's Ailing Oyster Populations, 4 December	1991
Brunswick Beacon, Richmond, Journal, Daily News and numerous Other periodicals: NCSU Scientists Study Ailing Oyster Colonies August	1991
External Reviewer Department Review Marine Earth and Atmospheric Sciences	2014

External Reviewer Tenure and/or Promotion

University of Tennessee, College of Veterinary Medicine	2013
Environmental Protection Agency	2010
University of Illinois College of Veterinary Medicine	2009
Mississippi State University College of Veterinary Medicine	2008
Auburn University College of Veterinary Medicine	2008
University of Minnesota College of Veterinary Medicine	2006
Mississippi State University College of Veterinary Medicine	2006
Washington State University College of Veterinary Medicine	2006
University of Rhode Island, Department of Plant Sciences	1998

Invited Colloquia/Special Colloquia/Panels/Special Workshop Participation

Lessons Learned About High Conflict Conversations, Levine, JF, Lee, J. NC State Department Training Session, Office of Faculty Development,	2020
Academic Pathways: Gearing Up for Faculty, Graduate Student & Post-doctoral. Student Training, Graduate School, NC State (Panel Member)	2020
Agricultural Commodity Panel Discussion, College of Veterinary Medicine	2020
Search and Interviewing Panel, Academic Pathways, North Carolina State University, Raleigh, NC, June	2020
Search and Interviewing Panel, Preparing for the Professorate, North Carolina State University, Raleigh, NC, October	2019
Problem Solving Hackathon, Faculty Mentor, North Carolina State University Raleigh, NC, October	2019
Search and Interviewing Panel, Academic Pathways North Carolina State, University, Raleigh, NC, May	2019
Search and Interviewing Panel, Preparing the Professorate, North Carolina State, University, Raleigh, NC, October	2018
Search and Interviewing Panel, , Preparing the Professorate, North Carolina State, University, Raleigh, NC, Raleigh, October	2017
Goal Setting, Building Future Faculty Program, North Carolina State University, Raleigh, NC, March	2017
Goal Setting, Building Future Faculty Program, North Carolina State University, Raleigh, NC, March	2016
The Grant Application Review, Process, State Assistant Professors Community, Raleigh, NC, February.	2016
Freshwater Mollusk Conservation Society Symposium Guntersville, Alabama (session moderator), March	2013
Fourth Congress on the State of the Environment: From the mountain to the beach; upland management and the state of coastal resources in Puerto Rico	2012
America's Healthcare Policy Through the Lens of Environmental Health Durham, North Carolina	2010
American Veterinary Medical Association Annual Meeting Panel Discussion of National Research Initiative Cooperative Agricultural Agreements, Washington DC	2007
Department of Homeland Security, National Center for Food Protection and Defense Food Safety Pathogen Detection Workshop San Antonio, Texas	2007
Food and Drug Administration, University of Maryland, University	2007

of Florida Tomato Research Workshop, College Park, Maryland Florida Tomato Exchange, University of Florida Institute of Food and Agricultural Sciences, Enhancing Food Safety of Tomatoes Workshop, Orlando, Florida.	2007
EU-US SafeFood Risk Research Workshop (Workshop Chair)	2006
US-EC Workshop on Innovative Technologies for Increasing Food Safety Brussels, Belgium	2005
Institute of Food Technologists, Food Defense Pertaining to Potential International Contamination (Group chair)	2005
Measured Response, Purdue Homeland Security Institute	2005
Preharvest Food Safety Colloquium, American Society of Microbiology Perthshire, Scotland	2003
Epidemiologic Research in Food Safety Issues USDA, NRI, CSREES: Washington, DC	2003
American Association of Veterinary Medicine Aquatic Animal Panel Philadelphia, PA	2001
Governor's Aquatic Sciences and Biotechnology Consortium, Raleigh, NC	1996
North Carolina - Israeli Workshop on Agricultural Biotechnology Aquaculture group convener, Raleigh, NC	1995
North Carolina Environmental Literacy Forum Raleigh, NC	1993
Lyme disease: Its potential threat and mechanisms of suppression in the Southeastern United States. Panel Moderator: Southeastern Lyme Disease Workshop, Knoxville, TN	1991
National Science Foundation, Research Priorities for Single Species Conservation Biology Work Group Front Royal, Virginia	1988

Service and Committee Assignments

Editorial Board Activities

Metabolites, Editorial Board	2021-present
Peer J, Associate Editor	2016-present
Journal of Veterinary Medical Education Guest Editor Special Issue focused on Colleges of Veterinary Medicine and Schools of Public Health Joint Programs in Public Health	2007-2008
Diseases of Aquatic Organisms Epidemiology/ Editor	2004-2006
Diseases of Aquatic Organisms Epidemiology/ Review Editor	2001-2004
College of Veterinary Internal Medicine Journal of Veterinary Internal Medicine Associate Statistical Editor	1990-1993
Co-Statistical Editor	1993-1994

Newsletter Editorial Oversight

FSRRN Journal, Co-Editor	2005-2009
PopMED Forum Newsletter, Co-Editor	1992-1993

Reviewer for various journals

American Journal of Veterinary Research
Diseases of Aquatic Organisms
Environmental Toxicology and Chemistry

Journal of the American Veterinary Medical Association
 Journal of Medical Entomology
 Journal of Parasitology
 Journal of Wildlife Diseases
 Journal of Zoo and Wildlife Animal Medicine
 Microbial Ecology
 Research Triangle Institute
 Preventive Veterinary Medicine
 Zoonoses and Public Health

Abstract/Presentation Review for Scientific Meetings

International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2018
International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2015
International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2012
American Association of Veterinary Medical Colleges and American Association of Schools of Public Health Joint Symposium Abstract Review	2007
Freshwater Mollusk Conservation Society, Student Presentation Reviewer, Freshwater Mollusk Conservation Society	2007
International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2006
International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2003
International Symposium for Veterinary Epidemiology and Economics ISVEE (scientific presentation abstract review)	2000

Study sections, Panels, and Proposal Review Activities

Research Triangle Institute Regional Metabolomics Core	2015
Virginia Sea Grant Program	2011
Canine Health Foundation, American Kennel Club, Grants Program	2007
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Ensuring Food Safety-Pre Harvest (Panel Manager)	2005
National Science Foundation Ecosystem Studies Program (Ad hoc reviewer)	2004
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Ensuring Food Safety-Pre Harvest (Panel Manager)	2004
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Ensuring Food Safety-Post Harvest (Panel Member)	2003
North Carolina Water Quality Group Competitive Grants Program (Panel Member)	2003
United States Dept. of Agriculture, National Research Initiative (NRI)	2002

Epidemiologic Approaches to Food Safety (Panel Member) United States Dept. of Agriculture, National Research Initiative (NRI) Ensuring Food Safety (Ad Hoc Reviewer)	2002
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Ensuring Food Safety (Panel Member)	2001
North Carolina Water Quality Group Competitive Grants Program (Panel Member)	2001
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program Animal Health and Well Being (Ad Hoc Reviewer)	2001
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Epidemiologic Approaches to Food Safety (Ad Hoc Reviewer)	2001
North Carolina Water Quality Group Competitive Grants Program (Panel Member)	2000
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Ensuring Food Safety (Panel Member)	2000
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program Animal Health and Well Being (Ad Hoc Reviewer)	2000
Welcome Trust Traveling Research Fellowships 2000	1999
United States Dept. of Agriculture, National Research Initiative (NRI) Competitive Grants Program, Epidemiologic Approaches to Food Safety (Panel Member)	1999
United States Dept. of Agriculture, National Research Initiative Competitive Grants Program Animal Health and Well-being Program. (Ad Hoc Reviewer)	1998
United States Dept. of Agriculture, Strengthening Competitive Grants Program Awards Program (Ad Hoc Reviewer)	1997
North Carolina Agriculture Extension Service (Ad Hoc Reviewer)	1996
The Welcome Trust Research Training Fellowship (Ad Hoc Reviewer)	1996
United States Department of Agriculture National Research Initiative Competitive Grants Program (Ad Hoc Reviewer)	1995
United States Department of Agriculture National Research Initiative Competitive Grants Program (Ad Hoc Reviewer)	1989

Organization of Professional Meetings & Special Tours

Forensic Sciences Institute Crime Scene Investigation Workshop Rutherfordton, NC,	2016
Food Safety Research and Response Network, Annual Meeting December, CRWAD, Chicago	2008
Food Safety Research and Response Network, Annual Meeting December, CRWAD, Chicago	2007
Food Safety Research and Response Network, Annual Meeting December, CRWAD, Chicago	2006
American Association of Veterinary Medical Colleges and American	

Association of Schools of Public Health Joint Symposium Planning Committee, Atlanta	2007
Food Safety Research and Response Network, Annual Meeting December, CRWAD, St. Louis	2005
Food Safety Research and Response Network, Kick-Off Meeting November, CRWAD, Chicago	2004
Biosecurity in Aquaculture, NC Aquaculture Conference, Atlantic Beach, January	2005
Food Safety Research and Response Network Kick-Off Meeting Conference of Research Workers of Animal Disease, Chicago, November	2004
3 rd Biennial Freshwater Mussel Conservation Society Symposium Symposium organizing Committee, Scientific program committee, Registration desk coordinator, Auction Co-Coordinator (Raised > \$4000 for student travel, awards) Durham, North Carolina.	2003
Aquaculture Epidemiology session: Tri-annual International Symposium for Veterinary Epidemiology and Economics, Organizer Abstract reviewer: Aquatic animals, wildlife, public health Breckenridge, Colorado	2000
Bilateral Shellfish Initiative Cooperative Research and Economic Development Tour of Shellfish Research and Growing Areas in Coastal France	1998
Aquaculture Epidemiology session: Triennial International Symposium for Veterinary Epidemiology and Economics, Organizer (First Time Session Included in Program (abstract reviewer, Session chair) Paris, France.	1997
College of Veterinary Medicine Annual Research Forum Co-organizer and Presider, Raleigh, NC	1995-1997
Bilateral Shellfish Initiative Cooperative Research and Economic Development Tour of Shellfish Research and Growing Areas in Coastal France	1995
North Carolina, Monthly Shellfish Forum (Co-organizer)	1995
North Carolina Oyster Summit, Co-organizer, Wilmington, NC	1994
Bilateral Shellfish Initiative Cooperative Research and Economic Development Tour of Shellfish Research and Growing Areas in Coastal France	1993
Animals as Sentinels of Human Exposure Co-organizer and presider, Raleigh, NC	1993
2nd Workshop on Lyme disease in the Southeast Co-organizer, Raleigh, NC	1993
NEXT Computer Demonstration. Organizer - September. Raleigh, NC	1989

Organizational Committees for Research Initiatives

Food Safety Research and Response Network Program Director, Steering Committee (chair)	2005-2009
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North Carolina State University Committees

NC State Provost's Department Head Advisory Committee	2018-2019
NC State Mentor's Rings Steering Committee	2017-present
NC State Standing Committee on Extension, Engagement and Economic Development	2016-2019
NC State Sustainability Council Academic Sustainability Subcommittee	2016-present
Office of Outreach and Engagement Strategic Plan Goal 1 Committee	2015-2016
Office of Outreach and Engagement Advisory Council (Co-chair)	2015-2016
Holliday Medical Selection Committee	2014-2015
Outreach and Engagement Banquet Planning Committee (co-chair)	2014-2016
Marine Earth and Atmospheric Sciences Department Review	2014
Carnegie Reclassification Committee	2013-2014
Chancellor's Excellence Program Forensic Science Search Committee	2013-2014
Thompson theater endowment board	2003-2005
Learning Information Technologies Resource Education	2002-2004
University Housing Committee	2001
CVM-Faculty Senate Representative	2000-2001
Faculty Senate Resource and Environment Sub. committee	2000
University Committee on Physical Environment	2000
University Physical Environments Comm. Resource Environment sub. committee	2000
University Housing Committee (Chair)	1998-2000
Residence Life Committee (Renamed Univ. Housing.)	1997-1998
Outreach and extension planning team	1996
Sci-link Program Steering Committee	1995-2003
Chairperson Southern Coastal Heritage Program Organizational and Planning Sub. Committee	1995
Extension Operations Council Education task-force	1994
Southern Coastal Heritage Program Steering Committee	1994-1995
Special Projects Coordinator NCSU Office of Outreach and Extension	1993-1994
Environmental Outreach and Extension Partnership Steering Comm.	1993-1994
North Carolina Environmental Education Learning Partnership	1993
Institutional Animal Care and Use Committee Long range planning sub-committee	1988
Campus Faculty Mediation Panel	1988-1989
University Animal Care and Use Committee	1986-1989
 <i>NCSU Computer technologies and information management</i>	
High performance Research computing committee	2009-2014
Learning in an Information Rich Environment (SACS accreditation)	2003-2004
NC Technologies Expo (Program Exhibitor)	1998-2000
Design and Management Information Networked Technologies Comm.	1995
Chairperson Student Computing Comm. Subcommittee on User Services	1995
Distance learning task-force	1994

Vice Chancellors Ad Hoc Telecommunications Planning Group	1994
Student computing committee	1993-1996
Electronic Communications Committee	1992
Academic Computing Committee	1991-1993

North Carolina State University College of Sciences Committees

College of Sciences, Safety Committee	2021-present
College of Sciences Reappointment, Promotion and Tenure Committee	2020-present
MEAS LGBT Advocate Program Representative	2018-present
MEAS Ad Hoc Faculty Work-load Committee	2018-2019
College of Sciences Business Office Associate Search Committee	2016
College of Sciences Leadership Committee (previously, Department Head's Committee)	2016-2019

North Carolina State University College of Veterinary Medicine Committees

Director of Global Health Education Search Committee	2014-2015
Open House Committee (Chair)	2014-2015
Chancellor's Faculty Excellence Candidate One-Health Search Committee	2013-2014
College of Veterinary Medicine Veterinary Health Complex Infectious Disease Control Committee (Chair)	2011-2015
College of Veterinary Medicine Space Committee	2004-2005
College of Veterinary Medicine Veterinary Teaching Hospital Implementation Team	2004-2006
Ad Hoc Committee for Reorganization of the College Of Veterinary Medicine	1998
Ad Hoc Committee for Development of a Residency/ Masters program (Chair)	1997
Ad Hoc Committee for Development of Integrated Problem Solving Classes (Chair)	1997
Curriculum committee	1997
World Wide Web committee	1996
Student Conduct Committee	1996-1997
Faculty Comm. on Graduate Programs (Chair)	1996-1997
Faculty Comm. on Graduate Programs	1994-2000
Cont. Education Committee and Public Programs Comm.	1994-1996
Deans Task Force on Interdisciplinary programs	1993
Summer Camp/Workshop Committee	1991- 1996
Computer Committee	1991- 1996
Computer Committee Personnel Subcommittee (chair)	1991
Pew National Veterinary Medical Education Program Steering Committee	1988-1990
Ad Hoc SPA Employee Assistance and Stress Committee	1988
CVM International Programs Committee	1988-1994

Veterinary Teaching Hospital Infection Control Committee	1986-2011
Adjunct Reviewer for the Admissions Committee	1987, 1988, 1994, 2000
Chairperson Ad Hoc EPA Employee Assistance and Stress Committee (Chair)	1987-1988

Department of Population Health and Pathobiology Search Committees

Veterinary Forensics	2015
CVM Global Health/One Health	2015
Cluster Hire, Chancellor's Faculty Excellence Program in Infection Diseases, Population Health and Pathobiology	2013-2014
Department Head, Farm Animal Health and Resource Management	1999
Parasitology –Microbiology, Pathology and Parasitology	1995
Ruminant Medicine – Food Animal and Equine Medicine	1992
Aquatic Animal Medicine, Companion Animal and Special Species Medicine	1989-1990
Laboratory Animal Medicine - Companion Animal and Special Species Medicine	1989-1990
Bovine Herd Health – Food Animal and Equine Medicine	1989
Epidemiology – Microbiology, Pathology and Parasitology	1985

Department of Marine, Earth and Atmospheric Sciences Committees

Faculty Affairs Committee	2020-present
Ad-Hoc Community Climate Committee	2019-present

Community/K-12 Outreach and Engagement Activities

Assisted with Habitat for Humanity Long Acres Community Partnership	2015-2016
Coordinated Mussel Outreach at CVM Open House	2011-2016
Homework Haven (afterschool tutoring program, established program, coordinator)	2009-present
<i>Sci-Blast</i> program (coordinator)	2009-2010
Qumran Festival Ancient Arts for Kids, Prairie Ridge, NC State Museum of Natural Sciences	2008
Sturgeon City Science Explorers (Environmental education program)	2007
Coordinated Mussel Outreach at CVM Open House	2006
Sturgeon City Science Explorers (Environmental education program)	2006
Coordinated Mussel Outreach at CVM Open House	2005
Sturgeon City Science Explorers (Environmental education program)	2005
Coordinated Mussel Outreach at CVM Open House	2004
Sturgeon City Science Explorers (Environmental education program)	2004
Coordinated Mussel Outreach at CVM Open House	2003
Sturgeon City Science Explorers (Environmental education program)	2003
NC State Museum of Natural Sciences Freshwater Mussel Outreach	2002
NC Museum of Life Sciences Biodiversity 911 Participant	2002

Coordinated Mussel Outreach at CVM Open House	2002
Progress Energy Environmental Education Program	2002
Science Teachers Mussels in the Classroom Sci-Link Workshop	2001
Coordinated Mussel Outreach at CVM Open House	2001
Wilson Bay Keepers (Middle School Environmental Education)	2001-
New Bridge Middle School Science Fair Judge	2000-
Sturgeon City Youth Leadership Institute Participant	1999-
MEGA Middle School technology group	1998-
Coordinated Sci-BLAST middle school student participation in the CVM Open House	1998
Science Stars Program/CVM coordinator	1997
<i>Sci-Blast</i> Program coordinator	1997-2001
<i>Sci-Blast</i> Workshop coordinator	1997-2001
Swift Creek Elementary Science Project Consultant	1997
Hunter Heath Dixon High School Student Research Projects	1996
Science Project Judge Science Ligon Middle School	1996
CVM Program, Reptile and Amphibian Day, NC Museum of Sciences	1996,1997
4-H Competition Judge	1996
CVM participation in NC Junior Science and Humanities Symposium	1995
4-H Extension Program Curriculum Steering Comm.	1995-1997
Planning Development Workshop for NCSU Model Middle School	1995
Star Program Support Our Students Program Planning Committee	1995
Oyster Agriculture Youth Apprenticeship Program.	1995-1996
Coordinated MPP participation in CVM Summer Workshop	1993-1995
Represented CVM in Adventures in Tomorrow Exhibit, McKimmon Center	1993
Coordinated College Participation in Henry Adams Science go-round	1991- 1995
Scientific Review Committee, North Carolina State Science Fair	1993, 1994

Massachusetts General Hospital

Wellman Building Animal Facility Planning Committee	1982-1983
Task Force on the Use of Animals in Research	1982-1984
Animal Studies Protocol Review Committee	1982
Animal Care Committee	1981-1984

Special Program Development

Coordinated establishment of a Cooperative Concentration area between UNC Public Health Gillings Global School of Public Health and NCSU/CVM	2011-2017
Participated in Development of North Carolina Collaboratory for Biomedical Informatics (NC B-Prepared)	2008-2010
Conceived and Established Veterinary Student Public Health Corps Garnered student support and serve as faculty mentor	2004-2016

Coordinated Development of the Food Safety Research Response Network, Assembled team, organized proposal preparation, served as network director	2004-2009
Co-coordinator New River Roundtable and Water Quality Work Workgroup	2002
Masters of Veterinary Public Health (Chair, steering comm.) Conceived the program, built the team, coordinated establishment and approval by Department, College, University and Graduate Student Board	2001
Organized and Established the International Society for Aquatic Animal Epidemiology: Conceived the idea, developed international society, served as first president, steering committee member and web site coordinator	2001
Developed Recommendations for NCSU meningococcal meningitis Prevention Program for Faculty Senate/NCSU Student Health Center	2000
Initiated, established vision, raised funds and helped design Sturgeon City Environmental Education Center and Recreational Complex, Facilitates, and Programs	1998
Organized and obtained funding for the Wilson Bay Water Quality Initiative, and Wetlands Restoration Effort	1998
Created and coordinated development of the CVM/Middle School <i>SCI-BLAST</i> Science Enrichment Program	1997-2001
Coordinated Development of a Five-Year Aquaculture Proposal Approved for USDA Agricultural Research Service Formula Funds	1997
Coordinated the development of the Masters in Specialized Veterinary Medicine graduate track	1997
Established NC Mussel Conservation Partnership (10 Biologists)	1997
Established CVM Student Zoonoses Prevention Sessions for Middle School Students	1996-1997
Established Sister Community Program for Onslow County/ La Tremblade France	1995
Established Bilateral Shellfish Initiative	1991
Established Population Medicine Program and served as program leader 1989-Spring 1994. (31 faculty)	1989-1994

Special NCSU/College of Veterinary Medicine Projects

Status of faculty mentoring at NCSU (Provost Office of Faculty Development)	2015-2016
Survey to assess faculty views of NCSU Outreach and Engagement Policy Vice Provost Office for Outreach and Engagement	2015-2017
Advisor, Vice Provost Office for Outreach and Engagement Strategic Plan	2015-2016
Coordinated College of Veterinary Medicine Open House	2014-2015
Coordinated proposal, funding, design and renovation of facilities to create the Aquatic Animal Biosecurity Laboratory: a facility for working with foreign aquatic animal pathogens	2003-2007
Coordinated Web Site Development for Hurricane Floyd Animal Relief effort	1999

Developed Infection Control Protocol for Hurricane Floyd Animal Relief Effort	1999
Coordinated Bivalve Barn Greenhouse Construction	1999
Initiated Infection Control Awareness Examinations within The CVM Hospital	1999
Coordinated conversion of the Bivalve Barn into a facility for holding freshwater mussels	1998
Developed Gloves Infection Control Awareness Program for CVM Hospital	1998
Coordinated the development of college wide rabies exposure and vaccination policy.	1995
Assisted with the development of a university-wide occupational health program.	1995
Coordinated college's response to rabies episode in hospital	1995
Designed computer-based multi-media teaching laboratory for the library	1994
Redesigned APR office space to create multi-media office	1991
Established and Coordinated College of Veterinary Medicine/ Department of Statistics Statistical Consulting Service	1990-2002
Coordinated, funding, design and construction of the CVM Bivalve Barn	1990
Faculty advisor - Population Medicine Computing Resource Facility	1989-1997
Co-coordinator - College of Veterinary Medicine Research Computer Network that provided first e-mail and internet access for college	1989-1991
Designed, Established and Supervised Population Medicine Computing Resource Facility	1989- 1997
Faculty advisor employee assistance survey	1989
Coordinated the College of Veterinary Medicine Graduate Survey	1989
Coordinated a Faculty Stress Work Environment Survey	1988
Conducted investigation of an outbreak of cryptosporidiosis in veterinary students within the college	1986
Coordinated the loan of IBM personal computers for use by faculty and students.	1985