Curriculum Vitae

Matthew E. Wilson, PAS, PhD

Professor
School of Agriculture and Food Systems
Davis College of Agriculture and Natural Resources
Division of Land Grant Engagement
West Virginia University
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https://scholar.google.com/citations?hl=en&authuser=1&user=ij66u7cAAAAJ

EDUCATION

Ph.D.	Iowa State University Major: **Physiology of Reproduction** Minor: **Genetics**	1999
M.S.	Iowa State University Major: **Physiology of Reproduction**	1996
B.S.	Purdue University Major: **Animal Science**	1994

PROFESSIONAL ACADEMIC EXPERIENCE

2013-Present	Professor, School of Agriculture and Food Systems, Davis College of Agriculture and Natural Resources, Division of Land Grant Engagement, West Virginia University.
2024-Present	Member, AgriLearn Institute, LLC, Morgantown, WV.
2024-Present	President, Regenerative Agricultural Innovations, LLC, Morgantown, WV.
2023-Present	Director, Alliance for Regenerative Livestock, West Virginia University.
2022-Present	Ad Hoc Site Visitor, Association for Assessment and Accreditation of Laboratory Animal Care International.
2019-2023	Associate Dean for Research, Davis College of Agriculture, Natural Resources and Design
2019-2023	Associate Director, West Virginia Agricultural and Forestry Experiment Station, West Virginia University.
2017-2019	Associate Dean for Programs, Davis College of Agriculture, Natural Resources and Design, West Virginia University.
2016-2022	Member, Institute of Water Security and Science, West Virginia University
2010-2014	Interim Chair, Division of Animal and Nutritional Sciences, Davis College of Agriculture, Natural Resources and Design, West Virginia University.
2008-2013	Associate Professor, Division of Animal and Nutritional Sciences, Davis College of Agriculture, Natural Resources and Design, West Virginia University.

2002-2008: Assistant Professor, Division of Animal and Nutritional Sciences, Davis College of Agriculture, Forestry and Consumer Sciences, West Virginia University.

2000-2001: Post-Doctoral Research Fellow, Division of Animal and Veterinary Sciences, Davis College of Agriculture, Forestry and Consumer Sciences, West Virginia University.

1994-1999: Graduate research assistant, Department of Animal Science, Iowa State University.

GRANTSMANSHIP ($13,352,803 in external funding secured)

2025 Principal Investigator, Donor Support, *Hearts of Gold Gap Funding*, **$100,000** for two years. Outcome: **Funded**.

2025 co-Principal Investigator, Division of Land Grant Engagement, Outcome-Based Seed Grant for Integrated Project Funding, entitled *From Pasture to Profit: Precision Livestock Technologies for West Virginia Cow-Calf Operations,* **$9,992** for one year. Outcome: **Not Funded**

2025 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$189,523** for one year. Outcome: **Funded**.

2025 Principal Investigator, National Institute of Food and Agriculture, Diseases of Agricultural Animals, entitled *Advancing Precision Health in Beef Cattle: AI-Driven Detection of Bovine Respiratory Disease,* **$649,814** for three years. Outcome: **Pending**

2025 Principal Investigator, Donor Support, *Hearts of Gold Increasing Training Capacity Funding*, **$72,000** for two years. Outcome: **Funded**.

2025 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$201,523** for one year. Outcome: **Funded**.

2025 Principal Investigator, Department of Energy, Large Animal Solar Systems Operations (LASSO) Prize – Phase 1, entitled *Agriculture of the Future, Powered by the Farm,* **$50,000** for two years. Outcome: **Pending**

2025 Project Director, Farm Credit of the Virginias grant, entitled, *Summer Interns at Reymann Memorial Farms*, **$5000** for one year. Outcome: **Funded.**

2024 Principal Investigator, National Science Foundation, Cyber Physical Systems Program Solicitation, entitled *Enhancing Animal Agriculture: Leveraging IoT and Big Data Analytics for Informed Decision-Making in Grazing and Feedlot Management*, **$1,199,999** for three years. Outcome: **Not funded.**

2024 Project Director, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train Service Dogs for Veterans*, **$590,564** for one year. Outcome: **Funded**.

2024 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$194,521** for one year. Outcome: **Funded**.

2024 Project Director, USDA National Institute of Food and Agriculture, Small Business Technology Transfer Program, entitled, *Regenerative Agricultural Innovations NIFA STTR*, **$175,000** for one year. Outcome: **Not funded.**

2024 Project Director, National Science Foundation, Small Business Innovation Research Grant Program, entitled, *NSF SBIR: Regenerative Agricultural Innovations SBIR*, **$305,000** for one year. Outcome: **Not Funded.**

2024 Project Director, Highland Bankshares grant, entitled, *Summer Interns at Reymann Memorial Farms*, **$9000** for one year. Outcome: **Funded.**

2024 Project Director, Daniel C. & Elizabeth D. Brown Faculty Development grant, entitled, *Additional mobile In-Pen Weighing unit to increase our on-farm research capacity*, **$7000** for one year. Outcome: **Funded.**

2024 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$255,180** for one year. Outcome: **Funded**.

2024 Co-Project Director, WVU Center for Civic Engagement and U. S. Americorps program, entitled, *Developing a program to aid students aging out of state wardship to more effectively engage in college*, **$61,000** for one year. Outcome: **Funded**.

2024 Co-Project Director, WVU Center for Civic Engagement and U. S. Americorps program, entitled, *Foundational year coach for the Hearts of Gold Service Dog Training program*, **$61,000** for one year. Outcome: **Funded**.

2023 co-Principal Investigator, Department of Energy, Solar Energy Technology Office, Bipartisan Infrastructure Law: Silicon Solar Manufacturing, and Dual-use Photovoltaics Incubator FOA entitled, *Diversifying on farm income in Appalachia: Quantifying the integration of beef cattle grazing and photovoltaics*, **$1,972,679** for three years. Outcome: **Funded**.

2023 Principal Investigator, National Science Foundation Innovation Corps - National Innovation Network Teams Program (I-Corps™ Teams) Program Solicitation NSF 21-552, entitled, *Alliance for Regenerative Livestock I-Corps Teams Proposal*, **$50,000** for one year. Outcome: **Funded**.

2023 Project Director, WVU Center for Civic Engagement and U. S. Americorps program, entitled, *Pathways Forward for West Virginians Through Animal Health-VISTA*, **$61,000** for one year. Outcome: **Funded**.

2023 Principal Investigator, Farm Credit of the Virginias Charitable Contributions Fund grant, entitled, *Acquisition of a Simulated Calf to Teach Dystocia Management to Special Forces Medics*, **$8,000** for one year. Outcome: **Funded**.

2023 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$220,143** for one year. Outcome: **Funded**.

2023 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$153,624** for one year. Outcome: **Funded**.

2023 Principal Investigator, Donor Support, *Hearts of Gold Gap Funding*, **$70,000** for two years. Outcome: **Funded**.

2023 co-Principal Investigator, USDA National Institute of Food and Agriculture, Veterinary Services Grant Program, entitled, *Incorporation of Food Animal Experiential Learning at Carver Center*, **$247,152** for three years. Outcome: **Funded**.

2023 co-Principal Investigator, Donor Support, *Hearts of Gold Building Renovation Funding Opportunities*, **$100,000** for two years. Outcome: **Funded**.

2023 Project Director, WVU task, entitled *A multisectoral approach for the development of an innovative veterinary technology program to strengthen the nation's food and agricultural, scientific, and professional workforce*. **$500,000** for three years. Outcome: **Funded**

2022 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$145,158** for one year. Outcome: **Funded**.

2022 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$148,752** for one year. Outcome: **Funded**.

2022 co-Principal Investigator, USFS Wood Innovation Program, *The Davis College Natural Resources Building*, **$200,779** for two years. Outcome: **Funded**.

2022 co-Investigator, Department of Energy, EERE, entitled, Establishing a Hardwood Cross Laminated Timber Laboratory, **$1,200,000** for one year. Outcome: **Funded**.

2022 Principal Investigator, Uniformed Services University, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train Service Dogs for Veterans*, **$599,466** for one year. Outcome: **Funded** ($599,466, 100%).

2022 Principal Investigator, Brdg.ai, *Development of advanced remote sensing approaches to improve sustainable beef cattle production*, **$129,367** for three years. Outcome: **Funded** ($129,367, 100%).

2021 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$190,180** for one year. Outcome: **Funded**.

2021 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$125,300** for one year. Outcome: **Funded**.

2021 co-Principal Investigator, Provost's office Academic Innovation Summit, *SmartAg WV*, **$133,000** for one year. Outcome: **Funded**.

2021 co-Principal Investigator, Donor Support, *Hearts of Gold Kennel Funding Opportunities*, **$200,000** for two years. Outcome: **Funded**.

2021 Principal Investigator, Uniformed Services University, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train*

Service Dogs for Veterans, **$484,182** for one year. Outcome: **Funded** ($484,182, 100%).

2020 Principal Investigator, Hatch Project, entitled *Modeling Dry Matter Intake in Grazing Beef Cattle*. Outcome: **Approved**.

2020 Participant, Multistate Hatch Project, entitled *W3010: Integrated Approach to Enhance Efficiency of Feed Utilization in Beef Production Systems*. Outcome: **Approved**.

2020 Principal Investigator, West Virginia Cattlemen's Association, entitled *Cost Share Value of Private Cattle Used in Research*, **$118,600** for one year. Outcome: **Funded**.

2020 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$172,392** for one year. Outcome: **Funded**.

2020 Co-Principal, Human Dog Bond Seven, Inc., entitled *Support for Hearts of Gold National Medical Service Dog building*, **$1,500,000** for five years. Outcome: **Funded** ($1,500,000, 100%).

2020 Principal Investigator, Uniformed Services University, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train Service Dogs for Veterans*, **$366,932** for one year. Outcome: **Funded** ($366,932, 100%).

2019 Principal Investigator, West Virginia Department of Agriculture, entitled *Cost Share Value of Cattle Used in Research*, **$163,598** for one year. Outcome: **Funded**.

2019 Principal Investigator, Uniformed Services University, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train Service Dogs for Veterans*, **$317,524** for one year. Outcome: **Funded** ($317,524, 100%).

2018 Principal Investigator, USDA NRCS, entitled *Pasture grazing efficiency calibration*, **$132,224** for three years. Outcome: **Funded** ($132,224, 100%).

2018 Principal Investigator, GrowSafe, LLC, entitled *Pasture grazing efficiency calibration*, **$306,509** for three years. Outcome: **Funded** ($306,509, 100%).

2018 Principal Investigator, Uniformed Services University, Wounded Warrior Service Dog Program, entitled *Support for the Hearts of Gold Service Dog Training Program to Train Service Dogs for Veterans*, **$280,773** for one year. Outcome: **Funded** ($280,773, 100%).

2016 Principal Investigator, Gauss Foundation, entitled *Support to achieve Assistance Dog International certification*, **$77,011** for three years. Outcome: **Funded** ($77,011, 100%).

2015 Principal Investigator, Snee-Rhienhardt Foundation, entitled *Support for the WVU CARES Initiative for the procurement and care of service dogs*, **$30,000** for one year. Outcome: **Funded** ($30,000, 100%).

2015 Principal Investigator, Davis Michael Endowment, entitled *Effort to improve recruitment and networking as well as professional development activities related to the WVU CARES Initiative, including Project ROVER*, **$3,785** for one year. Outcome: **Funded** ($3,785, 100%).

2015 Principal Investigator, Davis Michael Endowment, entitled *Development of a health*

maintenance program and teaching laboratory for the service dog training program, **$9,910**. Outcome: **Funded** ($9,910, 100%).

2014 Principal Investigator, Claude Worthington Benedum Foundation, entitled, *WVU Davis College Young Innovators Fellowship Program*, **$211,000** for three years. Outcome: **Funded** ($157,000, 74%).

2014 Principal Investigator, Farm Credit of the Virginias, entitled, *Scholarships in Support of WVU Davis College Young Innovators Fellowship Program*, **$100,000**. Outcome: **Funded** ($100,000, 100%).

2011 Principal Investigator, US Dept of Health and Human Services-CDC NIOSH, entitled, *Returning Our Veterans to Employment and Reintegration (ROVER)*, **$273,702** for three years. Outcome: **Funded** ($273,702, 100%).

2009 Participant, Multistate Hatch Project NCERA 57, entitled *Swine Reproductive Physiology*. Outcome: **Approved**.

2007 Project Director, USDA-NRICGP-41.0 Animal Reproduction, entitled *Dietary Manipulation of progesterone catabolism*. Funding Requested: **$339,939** for three years. Outcome: **Funded** ($339,939, 100%).

2007 Principal Investigator, WVU Faculty Travel Grant to participate in *the annual meeting of the Perinatal Research Society*. Funding requested: **$720**. Outcome: **Funded**.

2006 Principal Investigator, Hatch Project, entitled *Improving reproductive efficiency in livestock*. Outcome: **Approved**.

2006 Principal Investigator, WVU Faculty Travel Grant to participate in *the Havemeyer Workshop on Embryonic and Fetal Nutrition II*. Funding requested: **$700**. Outcome: **Funded**.

2006 Principal Investigator, Daniel C. & Elizabeth E. Brown Faculty Development Grant to participate in *the Havemeyer Workshop on Embryonic and Fetal Nutrition II*. Funding requested: **$1991.45**. Outcome: **Funded**.

2005 Principal Investigator, West Virginia University Faculty Senate, entitled *Growth hormone as a positive stimulus for fetal programming*. Funding Requested: **$15,000** ($15,000 limit) for one year. Outcome: **Funded** ($14,000; 93%).

2004 Participant, Multistate Hatch Project NCERA 57, entitled *Swine Reproductive Physiology*. Outcome: **Approved**.

2004 Co-Project Director, USDA-NRICGP- 45.0 Functional Genomics of Agriculturally Important Organisms, entitled *Acquisition of a microarray hybridization station for the Division of Animal and Veterinary Sciences at West Virginia University*. Funding Requested: **$14,668** for one year. Outcome: **Funded**.

2004 Project Director, WVU Research Corporation - Program to Stimulate Competitive Research (PSCoR), entitled *Modernization of cell culture facilities*. Funding Requested: **$35,567** for one year. Outcome: **Funded**.

2003 Principal Investigator, WVU Faculty Travel Grant to participate in *the Havemeyer*

Workshop on Embryonic and Fetal Nutrition. Funding requested: **$700**. Outcome: **Funded**.

2002 Participant, Multistate Hatch Project 427/Northeast Regional Project 1007, entitled *Ovarian and environmental influences on embryonic/fetal mortality in ruminants*. Outcome: **Approved**.

2002 Davis College of Agriculture, Forestry and Consumer Sciences internal funding to update physiologic recording equipment for Animal Physiology Laboratory, ANPH 405. Funding requested: **$23,925**. Outcome: **Funded**.

2002 Co-Investigator, USDA-NRICGP Equipment grant- 42.0 Animal Growth and Nutrient Utilization, entitled *Aquisition of a liquid scintillation counter for the Davis College of Agriculture at West Virginia University*. Funding requested: **$11,550** for one year. Outcome: **Funded**.

2002 Participant, Multistate Hatch Project, NCR 57, entitled *Swine Reproductive Physiology*. Outcome: **Approved**

2001 Principal Investigator, USDA-NRICGP Postdoctoral grant- 41.0 Animal Reproductive Efficiency grant, entitled *Investigation of the benefits of early gestational IGF-I in sheep*. Funding requested: **$88,726** ($90,000 limit) for two years. Outcome: **Funded**.

2001 Co-Investigator, USDA-ARS Specific Cooperative Agreement, entitled *Effect of feed additives to decrease ovarian function in the chicken*. Funding requested: **$52,882**. Outcome: **Funded**.

1999 Co-Investigator, Carver Trust Grant, entitled *Development of a model for the study of prenatal stress*. Funding requested: **$18,382** for one year. Outcome: **Funded**.

INVITED PRESENTATIONS

November 21, 2025 *Innovations in Grassland Agriculture: Activities of the Alliance for Regenerative Livestock*, CH4Global, Virtual.

July 22, 2024 *A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*, Physiology and Endocrinology Symposium, American Society of Animal Science Annual Meeting, Calgary, AB, Canada.

June 25, 2024 *A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*. Purdue University, Feldun Agricultural Research Center Field Day, Bedford, IN.

May 21-22, 2024 *Managed Grazing*, *State of the Science Summit:Feed Strategies to Reduce Enteric Emissions*, Co-Hosted by the California Department of Food and Agriculture and University of California Davis College of Agricultural and Environmental Sciences, Davis, CA.

March 7, 2024 *Innovations in Grassland Agriculture: Activities of the Alliance for*

	Regenerative Livestock, Appalachian Grazing Conference, Morgantown, WV.
December 9, 2023	*A new approach to measuring dry matter intake, from drylot to pasture*, Mountaineer Stockman's College, Canaan Valley Resort, Davis, WV.
August 26, 2023	*From Lab Plots to Pasture: Evolution and Revolution in the Regenerative Age*, Summer Performance Test Field Day at the Reymann Memorial Research, Education and Outreach Center, Wardensville, WV.
July 31, 2023	*Innovations in Grassland Agriculture: Activities of the Alliance for Regenerative Livestock*, Northeast Presidents and Administrators Conference, Bavarian Inn, Shepherdstown, WV.
April 25, 2023	*Research Activities of the Alliance for Regenerative Livestock*, Upshur Co. Farm Bureau Farm to City Dinner, Buckhannon, WV.
February 8, 2023	*Partnering Together for a Better West Virginia*, Governor's Conference Room, West Virginia State House, Charleston, WV
June 14, 2022	*The Value of Partnership Between a Land Grant University and it's State Department of Agriculture*, Southern Association of State Departments of Agriculture, Canaan Valley Resort, Davis, WV
January 19, 2022	*Partnership Activities with State Agencies to Build Research Capacity*: West Virginia Department of Agriculture Annual Meeting, Moorefield, WV
March 7, 2019	*Improving Animal Efficiency and Water Quality Systems: A Sustainable Agricultural Model Farm: Forage livestock systems.* Appalachian Grazing Conference, Morgantown, WV.
July 15-19, 2012	*The challenges associated with sustaining livestock farms for undergraduate teaching programs.* Annual Meeting of American Dairy Science Association and American Society of Animal Science, Phoenix, Arizona.
March 15-17, 2010	*Modification of the early gestational environment can have long term consequences on conceptus growth and development.* Annual Meeting of the Midwestern Section American Dairy Science Association American Society of Animal Science, Des Moines, Iowa
March 17-19, 2008	*The early gestational uterine environment programs placental nutrient transport*, Annual Meeting of the Midwestern Section American Dairy Science Association American Society of Animal Science, Des Moines, Iowa
November 25-28, 2007	*The role of the conceptus in determining placental efficiency and the*

	capacity of the uterus; 11th Biennial Conference of the Australasian Pig Science Association, Sofitel Brisbane, Queensland, Australia.
May 29-June 1, 2006	*Growth hormone modulation of the early uterine environment and conceptus development in sheep*; Havemeyer Workshop on Embryonic and Fetal Nutrition, Ravello, Italy.
November 13-16, 2004	*Influence of the embryo on extending luteal function in the pig*; Havemeyer Workshop on Maternal Recognition of Pregnancy in the Mare, Christ Church, Barbados.
May 15-18, 2003	*Factors influencing placental growth and efficiency in the pig*; Havemeyer Workshop on Embryonic and Fetal Nutrition, Ravello, Italy.
July 24-28, 2001	*Role of placental function in mediating conceptus growth and survival*; 93rd Annual Meeting of the American Society of Animal Science, Indianapolis.
June 3-6, 2001	*Comparative Aspects of Placental Efficiency*; Sixth International Conference on Pig Reproduction, University of Missouri-Columbia.
January 26, 1998	*Sharing the wealth: Lessons from the Chinese Meishan pig in understanding the controls of litter size in the pig*, H. Hugh Dukes Club, Iowa State University.

SEMINARS

May 8, 2025	*Agriculture of the Future, Powered by the Farm*, West Virginia State Agriculture and Natural Resources county Agents Meeting, Cedar Lakes Conference Center, Ripley, WV.
April 28, 2025	*Agriculture of the Future, Powered by the Farm*. School of Agriculture, Tennessee Tech University, Cookesville, TN.
August 27, 2024	*A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*. Department of Animal and Dairy Science, University of Georgia, Athens, GA.
April 10, 2024	*A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*, Department of Animal Science, Purdue University.
March 20, 2024	*A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*, Department of Animal Science, Colorado State University.
February 23, 2024	*A New Approach To Measuring Dry Matter Intake, from Drylot to Pasture: Activities of the Alliance for Regenerative Livestock*, School of Animal Science, Virginia Tech.

August 31, 2023 — *Innovations in grassland agriculture: Activities of the Alliance for Regenerative Livestock*, Division of Plant and Soil Sciences, West Virginia University.

October 24, 2008 — *Feeding for fertility: Insulin mediated dietary modulation of progesterone clearance in the dairy cow*, Department of Animal Science, North Dakota State University.

January 19, 2007 — *Insulin mediated dietary modulation of progesterone clearance*, Department of Animal Science, Purdue University.

September 23, 2002 — *Prenatal Development: Placental efficiency and a model of prenatal stress*, Department of Biology, West Virginia University.

September 24, 2001 — *Steroids in the egg: from sex determination in the turtle to a model of prenatal stress in the chicken*, Interdepartmental Endocrinology Program, Oregon State University.

December 8, 1999 — *The Role of the Conceptus in Determining Litter Size in the Pig*, Department of Animal Science, University of Nebraska Lincoln.

November 3, 1999 — *The Role of the Conceptus in Determining Litter Size in the Pig*, Division of Animal and Veterinary Science, West Virginia University.

October 22, 1999 — *The Role of the Conceptus in Determining Litter Size in the Pig*, USDA-ARS Gene Evaluation and Mapping Laboratory, Beltsville, MD.

INVITED TESTIMONY

September 21, 2023 — *VetStart West Virginia and Veterinary Technology rules*, West Virginia Board of Veterinary Medicine, Stonewall Jackson Resort, Roanoke, WV

July 29, 2022 — *Veterinary Technology Program at WVU and WVSU in partnership with WVDA*, Agriculture and Rural Development Joint Committee, West Virginia Legislature, Interim Session, Charleston, WV.

May 23, 2022 — *Agricultural Biosecurity*, Agriculture and Rural Development Joint Committee, West Virginia Legislature, Interim Session, Morgantown, WV.

PROFESSIONAL SERVICE ACTIVITIES

National

Indiana University Purdue University Indianapolis, External Faculty Evaluator, **2023**
Texas A & M University, External Faculty Evaluator, **2022**
Indiana University Purdue University Indianapolis, External Faculty Evaluator, **2022**
Association for Assessment and Accreditation of Laboratory Animal Care International, Ad hoc reviewer, **2022-present**.
AgInnovation, Past Chair, **2023-2024**.
AgInnovation, Chair, **2022-2023**.

Experiment Station Committee on Organization and Policy (AgInnovation), Chair Elect, **2021-2022**.
Northeastern Regional Association of Experiment Station Directors, Member, **2019-2023**.
Northeastern Regional Association of Experiment Station Directors, Multistate Activities Committee, **2020-present**.
Northeastern Regional Association of Experiment Station Directors, Multistate Activities Committee, Chair **2023-present**.
Northeastern Regional Association of Experiment Station Directors, Executive Committee, Chair **2020-2021**.
Northeastern Regional Association of Experiment Station Directors, Executive Committee, vice-Chair **2020**.
Northeastern Regional Association of Experiment Station Directors, Executive Committee, Member at Large **2019-2020**.
Experiment Station Section, National Research Support Program Review Committee, Member **2020-present**.
Advisory Board, Farm Credit of the Virginias Knowledge Center, **2018-present**.
Indiana University Purdue University Indianapolis, External Faculty Evaluator, **2017**
Graduate Student Paper Competition Committee, Midwest Section, American Society of Animal Science, **2004-2008**.
Graduate Student Paper Competition Committee, Midwest Section, American Society of Animal Science, **2009-2012**.
Academic Quadrathlon Committee, Midwest Section, American Society of Animal Science, **2004-Present**.
Physiology Section Committee, Midwest Section, American Society of Animal Science, **2007-2010**.
Chair, Academic Quadrathlon Committee, Midwest Section, American Society of Animal Science, **2006**.
Chair, Quiz Bowl Sub-committee, Academic Quadrathlon Committee, Midwest Section, American Society of Animal Science, **2007-2009**.
Editorial Board, Journal of Animal Science, **2002-2005**.
Editorial Board, Journal of Animal Science, **2010-2014**.
Board of Directors, American Society of Animal Science, **2001-2003**.
Session co-chair, *Effects of the Environment on Development and Function of Gametes*, Society for the Study of Reproduction Annual Meeting, Omaha, NE, **2006**
Secretary NCERA-57 regional project in swine reproduction, **2007**
Vice President NCERA-57 regional project in swine reproduction, **2008**
President NCERA-57 regional project in swine reproduction, **2009**
NCERA-57 Subcommittee for planning the 2008 Biennial Symposium on Pig Reproduction **2007-2008**
Secretary/Treasurer, Northeast Section American Society of Animal Science/Northeast Branch American Dairy Science Association, **2010-2011**
Vice-President, Northeast Section American Society of Animal Science/Northeast Branch American Dairy Science Association, **2011-2012**
President, Northeast Section American Society of Animal Science/Northeast Branch American Dairy Science Association, **2012-2013**
Section Editor-Poultry, National Image Gallery of the National Ag Library, USDA, **2010-**

2013

USDA ARS Project Plan Reviewer, NP-101 - Food Animal Production, **June 26, 2012**

Chair, Animal Science Chair's meeting, Tampa, FL, **Spring 2013**

BBSRC grant program, Reviewer, **2016**

State

President, West Virginia Agriculture and Forestry Hall of Fame **2025-2027**

First vice-President, West Virginia Agriculture and Forestry Hall of Fame **2023-2025**

Board of Directors, West Virginia Agriculture and Forestry Hall of Fame, Board Member, **2019-2022**, **2022-2025, 2025-2028**

Steering committee, West Virginia Agricultural Strategic Plan, West Virginia Agricultural Advisory Board, **2017-2019**

Award committee, West Virginia Chapter of Gamma Sigma Delta, **2010-2014**

Past President, West Virginia Chapter of Gamma Sigma Delta, **2010-2011**

President, West Virginia Chapter of Gamma Sigma Delta, **2009-2010**

Vice-President, West Virginia Chapter of Gamma Sigma Delta, **2008-2009**

Secretary, West Virginia Chapter of Gamma Sigma Delta, **2007-2008**

Treasurer, West Virginia Chapter of Gamma Sigma Delta, **2006-2007**

Historian, West Virginia Chapter of Gamma Sigma Delta, **2005-2006**

Steering committee, Appalachian Grazing Conference, **2010-Present**

University

WVU Extension Dean and Director Search Committee, **2019-2020**

Graduate Faculty, regular member, **2002-present**

Undergraduate Academic Advisor, **2002-present**

Non-human Use Subcommittee of the Radiation Safety Committee, **2005-2010**

Ad Hoc panelist Academic Integrity Panel, **2005**

Ad Hoc panelist Academic Integrity Panel, **2008**

Animal Care and Use Committee, **2009-present**

Vice-Chair, Animal Care and Use Committee, **2012-2016**

Chair, Animal Care and Use Committee, **2016-present**

Faculty Senator, Representing the Davis College of Agriculture, Natural Resources and Design **2008-2011, 2015-2018**.

Goldwater Scholars selection committee, **2016-present**

College

Davis College Promotion and Tenure Committee, **2016-2017**.

Davis College of Agriculture, Natural Resources and Design Dean and Director Search Committee, **2011**.

Davis College of Agriculture, Forestry and Consumer Science Diversity Committee, **2003-2005**.

Davis College of Agriculture, Forestry and Consumer Science Graduate Student Paper/Poster Committee, **2002-2004**.

Davis College of Agriculture, Forestry and Consumer Science Recruitment Committee, **2007-2011**.

Davis College Faculty Executive Committee, **2016-2017**

Davis College Digital Measures Leader for campus-wide implementation, **2016-2022**

School

Promotion and Tenure Committee, **2025-2026**.

Member dietetics internship selection committee, **2010**.
Promotion and Tenure Committee, **2008-2009**.
Promotion and Tenure Committee, **2004-2005**.
Promotion and Tenure Committee, **2002-2003**.
Undergraduate Student Advisor.
Small Ruminant Species Committee.
Chair, Swine Species Committee.
Student Fees Committee.
Chair, Board of Governors Master of Science in Animal and Veterinary Science degree Program Review, **2005**.
Interim Division Director, **2010-2014**
Division representative to the college Digital Measures committee, **2015-2022**

TEACHING

A&VS 293Q	Experience in Animal Science (2007)
A&VS 293R	Pork Production Laboratory (2008-2014)
A&VS 693	ADTP: Journal Club (2000-2017)
A&VS 791	Reproductive Physiology Journal Club (2000-2017)
AGBI 512	Nutritional Biochemistry (2004-2005)
AGBI 513	Nutritional Biochemistry Laboratory (2004)
AGBI 612	General Biochemistry II (2003)
ANPH 301	Animal Physiology (2004-2011; 2015-2018)
ANPH 405	Animal Physiology Laboratory (2002-2018)
ANPH 424	Reproductive Physiology (2000-2011)
ANPR 353	Pork Production (2009-2011)

GRADUATE EDUCATION

Major Professor

Doctor of Philosophy Students

Beth Alyson Costine, **2004**. Dissertation entitled, "*Mechanisms of reduced luteal sensitivity to $PGF_{2\alpha}$ in ruminants*".

Darron Louis Smith, **2005**. Dissertation entitled, "*Effect and mechanism of action of volatile fatty acids on the catabolism of progesterone*".

Jill Marie Koch, **2008** Dissertation entitled, "*Periconceptional treatment with growth hormone alters fetal growth and development in sheep*"

*2006 First Place, Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day, doctorate level poster competition.

*2007 Second place in the Graduate Student Competitive Research Posters at the Midwestern Section American Society of Animal Sciences Annual Meeting

*2007 First Place, Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day, doctorate level poster competition.

Caleb Owens Lemley, **2010** Dissertation entitled, *"Alterations in hepatic enzyme activity and progesterone clearance in lactating dairy cows"*

*2008 Second Place, Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day, doctorate level poster

competition.

*2009 First place in the Graduate Student Competitive Research Posters at the Midwestern Section American Society of Animal Sciences Annual Meeting

*2010 Second Place, Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day, doctorate level poster competition.

*2010 Invited ADSA Young Dairy Scholar entitled, "Progesterone clearance in dairy cows fed an insulin stimulating diet".

Tiffany Ann Wilmoth, **2012** Dissertation entitled, "*Modifications of Pre and Postnatal Development Due to Placental Efficiency and Maternal Exercise During Gestation*"

Lindsay Parenti, **2019** Dissertation entitled, "*Service Dogs for Veterans with PTSD: Taxonomy, Work Stress Reduction, and Matching*".

Nathan El Blake, **2025** Dissertation entitled, *"Longitudinal and Ensemble Modeling of Beef Cattle Feed and Water Intakes"*.

Tylor John Yost, expected **2028**

Deborah O. Ologunagba, expected **2029**

Master of Science Students

Jill Marie Koch, **2005**. Thesis entitled, "*Melengestrol acetate (MGA) as an effective alternative to induce molting in laying hens*".

*2005 First place in the Graduate Student Competitive Research Papers at the Midwestern Section American Society of Animal Sciences Annual Meeting

*2005 First Place in the Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day for Master's level poster competition.

*2005 Second place in the West Virginia University Chapter Sigma Xi graduate research day competition for Agriculture and Life Sciences.

Caleb Owens Lemley, **2007** Thesis entitled, "*Alterations in progesterone catabolic enzymes by insulin*".

*2006 Second place in the West Virginia University Chapter Sigma Xi graduate research day competition for Agriculture and Life Sciences.

*2007 Second place in the Graduate Student Competitive Research Posters at the Midwestern Section American Society of Animal Sciences Annual Meeting

*2007 Second Place in the Davis College of Agriculture Forestry and Consumer Sciences Graduate Student Research Day for Master's level poster competition.

Tiffany Ann Wilmoth, **2009** Thesis entitled, *"Variation in, and contributing factors of placental efficiency in swine"*.

Adam Eifert, **2013** Thesis entitled, *"The Effect of Melatonin or Maternal Nutrient Restriction on Cell Proliferation in the Ovine Placenta"*.

Amanda Hill, **2018** Thesis entitled, "*The role of migratory birds and their habitat utilization on the abundance of tick prevalence and the potential role in rickettsial disease life-cycle, a one-health approach*".

Master of Agriculture Students

Seth Lee Mayersohn, **2002**
Brie Anne Mauser, **2006**
Shane Plum, **2020**

Committee Member

Doctor of Philosophy Students

Alison Brown Dixon, **2003**
Aritro Sen, **2006**
Jennifer Laura Ripley, **2006**
Khaarthik John, **2006**
Aaron Shawn Keiss, **2006**
Beth M. Stinefelt, **2007**
Stephanie Gatrell, **2011**
Swamy Tripurani, **2011**
Siri Ippagunta, **2012**
Bobbi Bailey, **2013**
Nathaniel Rice, **2015**
Adam Redhead, **2016**
John K. Yost, **2019**
Godstime Taiwo, **2023**
Modolum G. Idowu, **2024**
Taylor Sidney, **2025**
Peyton Seats, expected 2026
Sneha Haridas, TBD

Master of Science Students

Angela D. Higgins, **2004**
Jyothsna Tejomurtula, **2007**
Stephanie Pomeroy, **2008**
Callayan Paul, **2015**
Abiodun Adebiyi, **2015**

UNDERGRADUATE INTERNS – ALLIANCE FOR REGENERATIVE LIVESTOCK

Maggie Waugh – Summer 2020
Tylor Yost – Summer 2021 and 2022
1 Peer-reviewed manuscript in preparation
2 Abstracts presented at American Society of Animal Science meetings.
Awarded support to attend National Cattlemen's Beef Association Convention.
4 Abstracts presented at Undergraduate Research activities.
Darcey Bennett – Summer 2022
Awarded support to attend National Cattlemen's Beef Association Convention.
James Helmondollar – Summer 2023
1 Peer-reviewed manuscript in preparation
Awarded support to attend National Cattlemen's Beef Association Convention.
2 Abstracts presented at Undergraduate Research activities.

Hartley VanGilder – Summer 2023
1 Peer-reviewed manuscript submitted
Awarded support to attend National Cattlemen's Beef Association Convention.
2 Abstracts presented at Undergraduate Research activities.
Invited to participate in week-long internship at Midland Bull Test, Columbus, MT
Levi Richman – Summer 2024
Elizabeth Ruby – Summer 2024
Zoë Wachsman – Summer 2024
Helen McCarty – Summer 2025

AD HOC REVIEWER

AgriEngineering
Animals
Animal Reproduction Science
Biology of Reproduction
Domestic Animal Endocrinology
European Journal of Clinical Nutrition
Journal of Animal Science
Journal of Endocrinology
Nature Publishing Group
Professional Animal Scientist
Reproduction
The Veterinary Journal
USDA-ARS
USDA-CSREES NRICGP

PROFESSIONAL ASSOCIATIONS

American Society of Animal Science
American Dairy Science Association
American Registry of Professional Animal Scientists
Society for the Study of Reproduction
Society for the Study of Fertility
Perinatal Research Society
American Association for the Advancement of Science
Gamma Sigma Delta
Sigma Xi

AWARDS

agInnovation National Excellence in Leadership Award **2024**

West Virginia University Values Award **2021**

Distinguished Animal Science Alumnus, Purdue University **2009**

Invited into membership in the Perinatal Research Society honorary **2007**

Nominee, American Society of Animal Science Early Career Achievement Award **2007**

Northeast American Society of Animal Science-American Dairy Science Association Young Scientist Award-Research **2006**

Outstanding Researcher, Division of Animal and Veterinary Science **2006**

Outstanding Junior Faculty Award of Merit, West Virginia Chapter of Gamma Sigma Delta, the Honor Society of Agriculture **2005**

Invited to membership in Gamma Sigma Delta, The Honor Society of Agriculture **2003**

AcademicKeys Who's Who in Agriculture Higher Education

Postdoctoral fellowship, USDA Cooperative State Research Education and Extension Service National Research Initiative Competitive Grants Program **2001-2002**

Second place, Graduate Student Competitive Research Paper Competition, Midwest Section of the American Dairy Science Association / American Society of Animal Science Annual Meeting in March **1999**

Best Graduate Student Oral Presentation, Iowa State University Biochemistry and Biophysics Spring Symposium **1997**

BOOK CHAPTER

1. **Wilson, M. E.** And L. L. Anderson. **2009**. Mechanistic aspects of foetal development relating to postnatal health and metabolism in pigs. In: *Managing Prenatal Development to Enhance Livestock Productivity*. pp. 161-202. Ed: P. Greenwood and A. Bell. FAO-IAEA
2. **Wilson, M. E.** **2007**. The role of the conceptus in determining placental efficiency and the capacity of the uterus. In: Manipulating Pig Production XI. pp. 128-135 Ed: J. E. Paterson and J. A. Barker. Australasian Pig Science Association Inc., Werribee, Victoria, Australia.
3. **Wilson, M. E.** and S. P. Ford. **2001**. Comparative aspects of placental efficiency. In: *Control of Pig Reproduction VI*. pp. 223-232. Ed: R. D. Geisert and H. Niemann. Journals of Reproduction and Fertility Ltd., Cambridge, UK.

CONFERENCE PROCEEDINGS

1. **Wilson, M. E. 2024.** *Managed Grazing*, *State of the Science Summit:Feed Strategies to Reduce Enteric Emissions*, Co-Hosted by the California Department of Food and Agriculture and University of California Davis College of Agricultural and Environmental Sciences, Davis, CA. https://clear.ucdavis.edu/sites/g/files/dgvnsk7876/files/inline-files/UC-Davis-State-of-the-science-report.pdf.

2. **Wilson, M. E.** **2007**. The role of the conceptus in determining placental efficiency and the capacity of the uterus. Proceedings of the 11th Biennial Conference of the Australasian Pig Science Association, November 25th-28th, Brisbane, Australia.
3. **Wilson, M. E.** and J. M. Koch. **2006**. Growth hormone modulation of the early uterine environment and conceptus development in sheep. Havemeyer Foundation Workshop on Embryonic and Fetal Nutrition, May 29th-June 1st, Ravello, Italy.
4. **Wilson, M. E.** **2004**. Influence of the embryo on extending luteal function in the pig. Havemeyer Foundation Workshop on Maternal Recognition of Pregnancy in the Mare III., November 13th-16th, Christchurch, Barbados.
5. **Wilson, M. E.**, S. P. Ford and K. A. Vonnahme. **2003**. Factors influencing placental growth and efficiency in the pig. Havemeyer Foundation Workshop on Embryonic and Fetal Nutrition, May 15th - 18th, Ravello, Italy.
6. Lay, D. C., Jr. and **M. E. Wilson**. **2001**. Methods and measurements to assess the physiological state of livestock. 52nd Annual Meeting of the European Association for Animal Production, August 26-29, 2001 Budapest, Hungary.

INTELLECTUAL PROPERTY FILINGS

1. **Wilson, M. E.** and E. ArunKumar Kalaga. **2025**. Early Detection for Livestock. Disclosure filed with WVU Office of Innovation and Commercialization.
2. **Wilson, M. E.**, M. Walker, D. Mata-Padrino, N. E. Blake, E. ArunKumar Kalaga, I. Holaskova. **2025**. Systems and Methods to Predict Water Intake for Grazing Livestock. Disclosure filed with WVU Office of Technology Transfer.
3. **Wilson, M. E.**, M. Walker, J. A. Hubbart, D. Mata-Padrino, N. E. Blake, I. Holaskova. **2024**. Systems and Methods to Predict Dry Matter Intake for Grazing Livestock. Provisional Patent Filed, WVU 2023-020 [IL Ref.: WVU-00039-U-USPRV-01], Patent Cooperations Treaty filing.
4. **Wilson, M. E.**, M. Walker, J. A. Hubbart, D. Mata-Padrino, N. E. Blake, I. Holaskova. **2023**. Systems and Methods to Predict Dry Matter Intake for Grazing Livestock. Provisional Patent Filed, WVU 2023-020 [IL Ref.: WVU-00039-U-USPRV-01], U.S. Patent and Trademark Office.
5. **Wilson, M. E.**, M. Walker, J. A. Hubbart, D. Mata-Padrino, N. E. Blake, I. Holaskova. **2022**. Systems and Methods to Predict Dry Matter Intake for Grazing Livestock. Disclosure filed with WVU Office of Technology Transfer.

REFEREED JOURNAL PUBLICATIONS

1. Parenti, L., B. J. Meade, C. Byrd and **M. E. Wilson**. **2025**. The effect of dogs on veteran stress and the impact of veteran and service dog personality characteristics. *Anthrozoos* (Submitted).
2. Helmondollar, J., N. E. Blake, H. VanGilder, I. Holásková , J. W. Yates and **M. E. Wilson**. **2025**. Total fuel efficiency of Akaushi F1 crossbred steers. *Applied Animal Science* (In preparation).
3. ArunKumar, E. K., **M. E. Wilson**, N. E. Blake, T. J. Yost and M. Walker. **2025**. Deep Learning for Tumor Segmentation and Multiclass Classification in Breast Ultrasound

Images Using Pretrained Models. *Sensors* (Accepted 12/9/25)

4. Blake, N. E., K. E. ArunKumar, M. Walker, T. J. Yost, D. Mata-Padrino, I. Holásková, J. W. Yates, D. Bishoff, S. Johnson, G. Taiwo, M. Idowu, I. Ogunade, D. Matlick, J. Hatton and **M. E. Wilson**. **2025**. Predicting Individual Water Intake in Beef Cattle Using Longitudinal Data and LSTM Models. *Journal of Animal Science* (Submitted 12/2/25).
5. Blake, N. E., K. E. ArunKumar, M. Walker, T. J. Yost, D. Mata-Padrino, I. Holásková, J. W. Yates, D. Bishoff, S. Johnson, G. Taiwo, M. Idowu, I. Ogunade, D. Matlick, A. Smith, B. Smith, J. Hatton and **M. E. Wilson**. **2025**. Generalizable LSTM Models For Beef Cattle DMI Under Grazing. *Journal of Animal Science* (Submitted 12/8/25).
6. Blake, N. E., K. E. ArunKumar, M. Walker, T. J. Yost, D. Mata-Padrino, I. Holásková, J. W. Yates, D. Bishoff, S. Johnson, G. Taiwo, M. Idowu, I. Ogunade, J. Hatton and **M. E. Wilson**. **2025**. Characterization of Individual Beef Cattle Water Intake. *Journal of Animal Science* (Submitted 10/9/25).
7. Blake, N. E., K. E. ArunKumar, M. Walker, T. J. Yost, D. Mata-Padrino, I. Holásková, J. W. Yates, S. Johnson, G. Taiwo, M. Idowu, I. Ogunade, J. Hatton and **M. E. Wilson**. **2025**. Deployable DMI Prediction Using GPBoost, MLOps, and Flask Without the Need for Exact Birth Dates. *Animal* (Submitted 11/26/25)
8. Yost, T. J., N. E, Blake, I. Holásková, D. Mata-Padrino, J. Yost, J. W. Yates and **M. E. Wilson**. **2025**. Associations between feeding behaviors, Residual Feed Intake, and Residual average daily gain in performance tested yearling bulls and heifers fed a high forage diet. *Animals* (Accepted 12/9/25).
9. Blake, N. E., **M. E. Wilson** and M. Strager. **2025**. Reclaiming West Virginia Gas Wells for Agrivoltaics: A Fuzzy Logic Approach. Frontiers in Sustainability (Accepted)
10. VanGilder, H., N. E. Blake, T. J. Yost, E. K. ArunKumar, M. Walker, I. Holásková , J. W. Yates and **M. E. Wilson**. **2025**. Validation of a novel method to measure individual water intake in beef cattle. *Animals* 15:2904; https://doi.org/10.3390/ani15192904.
11. ArunKumar, K. E., N. E. Blake, M. Walker, T. J. Yost, D. Mata-Padrino, I. Holásková, J. W. Yates, J. Hatton and **M. E. Wilson**. **2025**. Predicting dry matter intake in cattle at scale using gradient boosting regression techniques and Gaussian process boosting regression with SHAP explainable AI, MLflow and its containerization. *Journal of Animal Science* 103:skaf041, https://doi.org/10.1093/jas/skaf041.
12. Zakia, M. T., **M. E. Wilson** J. W. Yates and K. D. Orner. **2024**. A Framework for Informing Context-Sensitive Sustainable Management of Organic Waste in Rural Farming Regions. *Environmental Research: Infrastructure and Sustainability* 4:015006 https://doi.org/10.1088/2634-4505/ad2376.
13. Idowu, M., G. Taiwo, T. Sidney, O. Morenikeji, A. P. Cervantes, Z. M. Estrada-Reyes, **M.E. Wilson** and I. M. Ogunade. **2023**. The differential plasma and ruminal metabolic pathways and ruminal bacterial taxa associated with divergent residual body weight gain phenotype in crossbred beef steers. *Translational Animal Science* 7, txad054. https://doi.org/10.1093/tas/txad054.
14. Blake, N., M. Walker, I. Holaskova, D. J. Mata-Padrino, S. Plum, J. Hubbart, J. Hatton and **M. E. Wilson**. **2023**. Predicting Dry Matter Intake in Beef Cattle. *Journal of Animal Science* 101:1–12. https://doi.org/10.1093/jas/skad269
15. Hubbart, J., N. Blake, I. Holásková, D. Mata Padrino, M. Walker and **M. E. Wilson**. **2023**. Challenges in Sustainable Beef Cattle Production: A Subset of Needed Advancements. *Challenges* 14:1-15.

16. Taiwo, G., M. D. Idowu, **M. E. Wilson**, A. Pech-Cervantes, Z. M. Estrada-Reyes, I. M. Ogunade. **2022**. Residual Feed Intake in Beef Cattle Is Associated With Differences in Hepatic mRNA Expression of Fatty Acid, Amino Acid, and Mitochondrial Energy Metabolism Genes. *Frontiers in Animal Science*. 3:1-8.
17. Taiwo, G., M. Idowu, S. Collins, T. Sidney, **M. Wilson**, I. Ogunade, A. Pech-Cervantes. **2022**. Chemical group-based metabolome analysis identifies candidate plasma biomarkers associated with residual feed intake in beef steers. *Frontiers in Animal Science*. 2:1-12.
18. Yost, J. K., J. W. Yates, B. Smith, D. J. Workman, D. Matlick, **M. E. Wilson** and A. M. Wilson. **2021**. Special Forces Medical Sergeant/Special Operations Independent Duty Corpsman Candidates: Large Animal Module. *Journal of Special Operations Medicine* 21 :115-118.
19. Yost, J. K., J. W. Yates, M. P. Davis and **M. E. Wilson**. **2020**. The Stockman's Scorecard: quantitative evaluation of beef cattle stockmanship. *Translational Animal Science*. 4:1-9.
20. Yost, J. K., J. W. Yates, D. J. Workman and **M. E. Wilson**. **2020**. The Stockman's Scorecard: validity and reliability as an instrument to measure stockmanship. *Journal of Extension* 58:1-5.
21. Krombeen, S. K., V. Shankar, R. E. Noorai, C. A. Saski, J. L. Sharp, **M. E. Wilson**, T. A. Wilmoth. **2019**. The identification of differentially expressed genes between extremes of placental efficiency in maternal line gilts on day 95 of gestation. *BMC Genomics* 20:254-269.
22. Krombeen, S. K., W. C. Bridges, **M. E. Wilson** and T. A. Wilmoth. **2018**. Factors contributing to the variation in placental efficiency on days 70, 90, and 110 of gestation in gilts. *Journal of Animal Science* 97:359-373.
23. Parenti, L., A. M. Foreman, **M. E. Wilson**, O. Wirth and B. J. Meade. **2016**. Selecting Quality Service Dogs (Part 3): Recommendations. *The Chronicle of the Dog*. Spring 2016:24-29.
24. Parrish, J.J., M.F. Smith, R.D. Geisert, D.L. Davis, **M.E. Wilson** and W.L. Flowers. **2015**. How to communicate with undergraduate students that lack an animal science or agricultural background. *Animal Frontiers* 5:54-59.
25. Foreman A. M., L. Parenti, **M. E. Wilson**, O. Wirth and B. J. Meade. **2015**. Selecting Quality Service Dogs (Part 2): Temperament Characteristics. *The Chronicle of the Dog* Winter 2015:25-32.
26. Parenti, L. O. Wirth, J. Meade and **M.E. Wilson**. **2015**. Selecting and Breeding Quality Service Dogs (Part 1): Genetic and Health Considerations. *The Chronicle of the Dog* Summer 2015:71-77.
27. Baughman, P., A. Foreman, L. Parenti, J.R. Scotti, B.J. Meade, **M.E. Wilson** and O. Wirth. **2015**. APDT Research Spotlight: Project ROVER's survey of assistance dog providers. *The Chronicle of the Dog* Summer 2015:30-33.
28. Eifert, A. W., **M. E. Wilson**, K. A. Vonnahme, L. E. Camacho, P. Borowicz, D. A. Redmer, S. Romero, S. Dorsam, J. Haring and C. O. Lemley. **2015**. Effect of melatonin or maternal nutrient restriction on vascularity and cell proliferation in the ovine placenta. *Animal Reproduction Science* 153:13-21.
29. Lemley, C. O. , A. M. Meyer, T. L. Neville, D. M. Hallford, K. R. Maddock-Carlin, T. A. Wilmoth, **M. E. Wilson**, G. A. Perry, D. A. Redmer, L. P. Reynolds, J. S. Caton, and K.

A. Vonnahme. **2014**. Dietary selenium and nutritional plane alter specific aspects of maternal endocrine status during pregnancy and lactation. *Domestic Animal Endocrinology* 46:1-11

30. Kiess, A. S., M. Manangi, B. M. Stinefelt, **M. E. Wilson** and K. P. Blemings. **2013**. Lysine catabolism in chickens fed at or below their lysine requirement. *Poultry Science* 92 :2705–2712.
31. Koch, J. M., C. O. Lemley, R. R. Magness and **M. E. Wilson**. **2013**. Peri-conceptional growth hormone treatment alters the early uterine environment. *Open Journal of Animal Science* 3:121-126.
32. Lemley, C. O. and **M. E. Wilson**. **2010**. Effect of cytochrome P450 and aldo-keto reductase inhibitors on progesterone decay in primary bovine hepatic cell cultures. *Journal of Dairy Science* 93:4613-4624.
33. Wilmoth, T. A., J. M. Koch, D. L. Smith and **M. E. Wilson**. **2010**. Estradiol-17ß alters trophectoderm proliferation in pig embryos. *Journal of Animal and Veterinary Advances* 9:782-786.
34. Lemley, C. O., K. A. Vonnahme, L. R. Tager, K. M. Krause and **M. E. Wilson**. **2010**. Insulin secretion, cytochrome P450 activity, liver blood flow and progesterone clearance in dairy cows fed a high cornstarch versus a high fiber diet. *Journal of Endocrinology* 205:233-241.
35. Lemley, C. O., T. A. Wilmoth, L. R. Tager, K. M. Krause, and **M. E. Wilson**. **2010**. Effect of a high cornstarch diet on hepatic cytochrome P450 2C and 3A activity and progesterone half-life in dairy cows. *Journal of Dairy Science* 93:1012-1021.
36. Koch, J. M., T. A. Wilmoth and **M. E. Wilson**. **2010**. Peri-conceptional growth hormone treatment alters fetal growth and development. *Journal of Animal Science* 88:1619-1625.
37. O'Neil, M. R., G. P. Lardy, C. O. Lemley, **M. E. Wilson**, L. P. Reynolds, J. S. Caton, and K. A. Vonnahme. **2009**. Estradiol-17β and linseed meal interact to alter visceral organ mass and hormone levels from ovariectomized ewes. *Domestic Animal Endocrinology* 37:148-158.
38. Lemley, C. O., J. M. Koch, K. P. Blemings and **M. E. Wilson**. **2009**. Alterations in progesterone catabolic enzymes, CYP2C and CYP3A, in hepatocytes challenged with insulin and glucagon. *Journal of Animal and Veterinary Advances* 8:39-46.
39. Kiess, A. S., B. M. Stinefelt, **M. E. Wilson**, H. Klandorf, K. P. Blemings. **2008**. Murine hepatic aminoadipate semialdehyde synthase appears to be post-translationally regulated. *Nutrition Research* 28:859-865.
40. Galbreath, C. W., E. J. Scholljegerdes, G. P. Lardy, K. G. Odde, **M. E. Wilson**, J. W. Schroeder and K. A. Vonnahme. **2008**. Effect of feeding flax or linseed meal on progesterone clearance rate in ovariectomized ewes. *Domestic Animal Endocrinology* 35:164-169.
41. Lemley, C. O., J. M. Koch, K. P. Blemings, K. M. Krause and **M. E. Wilson**. **2008**. Concomitant changes in progesterone catabolic enzymes, cytochrome P450 2C and 3A, with plasma insulin concentrations in ewes supplemented with sodium acetate or sodium propionate. *Animal: An International Journal of Animal Bioscience* 2:1223-1229.
42. Lemley, C. O., S. T. Butler, W. R. Butler and **M. E. Wilson**. **2008**. Short Communication: Insulin Alters Hepatic Progesterone Catabolic Enzymes, Cytochrome P450 2C and 3A, in Dairy Cows. *Journal of Dairy Science* 91:641-645.
43. **Wilson, M. E.** and J. M. Koch. **2008**. Growth hormone modulation of the early uterine

environment and conceptus development in sheep. *Havemeyer Monograph Series* 21:24-26.

44. Koch, J. M., J. S. Moritz, D. C. Lay and **M. E. Wilson**. **2007**. Effect of melengestrol acetate as an alternative to induce molting in hens on the expression of yolk proteins and turnover of oviductal epithelium. *Animal Reproduction Science* 102:14-23.
45. Koch, J. M., D. C. Lay Jr., K. A. McMunn and **M. E. Wilson**. **2007**. Alternative method to induce molt that addresses hen well-being. *Poultry Science* 86:614-620.
46. Dixon, A. B., M. Knights, J. L. Winkler, D. J. Marsh, J. L. Pate, **M. E. Wilson**, R. A. Dailey, G. Seidel and E. K. Inskeep. **2007**. Patterns of and factors affecting late embryonic and fetal mortality in sheep. *Journal of Animal Science* 85:1274-1284.
47. Costine, B. A., E. K. Inskeep, K. P. Blemings, J. A. Flores and **M. E. Wilson**. **2007**. Mechanisms of luteal resistance to prostaglandin $F_{2}\alpha$ during maternal recognition of pregnancy in ewes. *Domestic Animal Endocrinology* 32:106-121.
48. Higgins, A. D., J. T. Silverstein, J. Engles, **M. E. Wilson**, C. E. Rexroad III and K. P. Blemings. **2006**. Starvation induced alterations in hepatic lysine metabolism in different families of rainbow trout (*Oncorhynchus mykiss*). *Fish Physiology and Biochemistry* 31:33-44.
49. Parsons, A., N. Buchanan, K. P. Blemings, **M. E. Wilson** and J. S. Moritz. **2006**. Effect of corn particle size, pellet texture and feed form on broiler performance in the growing phase. *Journal of Applied Poultry Research* 15:245-255.
50. Smith, D. L., B. M. Stinefelt, K. P. Blemings and **M. E. Wilson**. **2006**. Diet-induced alterations in progesterone clearance appear to be mediated by insulin signaling in hepatocytes. *Journal of Animal Science* 84:1102-1109.
51. Koch, J. M., J. S. Moritz, D. C. Lay Jr. and **M. E. Wilson**. **2005**. Melengestrol Acetate in Experimental Diets as an Effective Alternative to Induce a Decline in Egg Production and Reversible Regression of the Reproductive Tract in Laying Hens I. Determining an Effective Concentration of Melengestrol Acetate. *Poultry Science* 84:1750-1756.
52. Koch, J. M., J. S. Moritz, D. L. Smith, D. C. Lay Jr. and **M. E. Wilson**. **2005**. Melengestrol Acetate as an Effective Alternative to Induce a Decline in Egg Production and Reversible Regression of the Reproductive Tract in Laying Hens II. Effects on Post-Molt Egg Quality. *Poultry Science* 84:1757-1762.
53. Vonnahme, K. A., **M. E. Wilson**, Y. Li, H. L. Rupnow, T. M. Phernetton, S. P. Ford, R. R. Magness. **2005**. Circulating levels of nitric oxide and vascular endothelial growth factor throughout ovine pregnancy. *The Journal of Physiology* 565:101-109.
54. **Wilson, M. E.** **2005**. Influence of the embryo in extending luteal function in the pig. *Havemeyer Monograph Series* 16:13-15.
55. Costine, B. A., E. K. Inskeep and **M. E. Wilson**. **2005**. Growth hormone at breeding modifies conceptus development and postnatal growth in sheep. *Journal of Animal Science* 83:810-815.
56. Manangi, M. K., S. F.A. Hoewing, J. G. Engels, A. D. Higgins, J. Killefer, **M. E. Wilson** and K. P. Blemings. **2005**. Lysine α-ketoglutarate reductase is widely distributed in the chicken. *Journal of Nutrition* 135:81-85.
57. Choudhary E., B. A. Costine, **M. E. Wilson**, E. K. Inskeep and J. A. Flores. **2004**. Prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$) independent and dependent regulation of the bovine luteal endothelin system. *Domestic Animal Endocrinology* 27:63-79.
58. Lay, D. C., Jr. and **M. E. Wilson**. **2004**. Considerations When Using Physiological Data

in Assessing Animal Well-Being. *Journal of Animal and Veterinary Advances* 3:626-629.

59. **Wilson, M. E.**, S. P. Ford and K. A. Vonnahme. **2003**. Factors influencing placental growth and efficiency in the pig. *Havemeyer Monograph Series* 10:33-35.
60. **Wilson, M. E. 2002**. Role of placental function in mediating conceptus growth and survival. *Journal of Animal Science* 80 (E Supplement 2): E195–E201.
61. **Wilson, M. E.**, S. C. Fahrenkrug, T. P. L. Smith, Gary A. Rohrer and S. P. Ford. **2002**. Differential expression of cyclooxygenase-2 during elongation in the pig conceptus. *Animal Reproduction Science* 71: 229-237.
62. Vonnahme, K. A., **M. E. Wilson**, G. R. Foxcroft and S. P. Ford. **2002**. Impacts of conceptus survival in a commercial swine herd. *Journal of Animal Science* 80:553-559.
63. Ford, S. P., K. A. Vonnahme and **M. E. Wilson**. **2002**. Uterine capacity in the pig reflects a combination of uterine environment and conceptus genotype effects. *Journal of Animal Science* 80 (E Supplement 1): E66-E73.
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ABSTRACTS

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