

*Curriculum Vitae*

**Kimberly I. Tumlin, PhD, MS, MPH**

University of Kentucky  
720 Sports Center Drive  
Lexington KY 40506  
859-325-1599 (c)  
[kimberly.tumlin@uky.edu](mailto:kimberly.tumlin@uky.edu)

**Profile**

As an Assistant Professor in Epidemiology, my research focuses on injury epidemiology and occupational health. My expertise in secondary data analysis and use of population health outcomes provides cross-systems decision support in public health programs for trauma-affected populations.

**Academic and Professional Experience**

Department of Epidemiology  
College of Public Health  
University of Kentucky  
Lexington, KY

- Assistant Professor 2020-Present
- Research 70%, professional development and service 10%, teaching 20%
  - Center for Innovation in Population Health, affiliate faculty
  - Secondary appointment in Department of Athletic Training and Clinical Nutrition, College of Health Sciences

Sports Medicine Research Institute  
College of Health Sciences  
University of Kentucky  
Lexington, KY

- Equestrian Athlete Initiative—Research Director/PI 2020-Present
- Builds relationships for community-engaged research
  - Leads Equestrian Athlete and RACER Registries

Department of Preventive Medicine and Environmental Health  
College of Public Health  
University of Kentucky  
Lexington, KY

- Assistant Professor 2018-2020

Dean's Office  
 College of Public Health  
 University of Kentucky  
 Lexington, KY

Assistant Dean for Strategic Planning and Assessment	2017-2018
Assistant Dean for Academic and Faculty Affairs	2014-2017

School of Business, Equine and Sport Studies  
 Midway University  
 Midway, KY

Dean of the School	2013-2014
<ul style="list-style-type: none"> <li>▪ Managed budgetary (\$500,000), faculty, staff, and daily operations of over 150 acres, three equestrian facilities, and herd health (60 horses)</li> <li>▪ Designed facility renovations resulting in operational savings of 33%</li> <li>▪ Achieved 95% retention in first year Equine Studies students as compared to 70% and 61% retention in 2012-13 and 2011-12, respectively</li> <li>▪ In-kind donation secured of over \$50,000</li> <li>▪ Established the Annual Student Internship Grant (\$5000 annually for 5 years)</li> <li>▪ Recruited and Hired Western Coach with over 80 World and National Titles and over 35 years of Professional Experience, and demonstrated a 260% increase for Regional Qualified riders (setting an institutional record)</li> <li>▪ Implemented an Equine Professions-based International Program in Panama, with first Panamanian students enrolled in Spring 2014</li> </ul>	
Chair, Department of Equine Studies	2012-2013
Associate Professor	2010-2014
Assistant Professor	2004-2010

Department of Animal Sciences  
 College of Agriculture  
 University of Kentucky  
 Lexington, KY

Research Assistant	2000-2004
--------------------	-----------

Kellogg, Brown, & Root (subsidiary of Halliburton)  
 Buena Vista, VA

Chief Meat Scientist	1997-2000
<ul style="list-style-type: none"> <li>▪ Project Manager for innovative technology the Hydrodyne Process; a revolutionary, multibillion-dollar patented operation that utilized high-energy explosives to tenderize animal food products</li> <li>▪ Operations manager for safety compliance (OHSA, HACCP) and coordination of research activities with USDA, DuPont Polymers, Virginia Tech, Kansas State University and Wisconsin State University</li> </ul>	

## **Education**

- MPH University of Alabama, Birmingham, Birmingham, AL  
 Concentration: Occupational Health & Safety, (2018) GPA 4.0/4.0
- Qualification Certified VALUE Institute Scorer, Association of American Colleges and Universities (2018)
- Qualification Registered Specialist #232312, Exposure Decision Analysis (2018)
- Qualification Level 1 Certification in Equine Assisted Psychotherapy and Learning, EAGALA (2006)
- PhD University of Kentucky, Lexington KY  
 Major: Animal Science  
 Concentration: Immunology, (2004) GPA 3.7/4.0  
 Dissertation: *Immunological and physiological adaptations of neonatal and juvenile Holstein dairy calves in response to environment, ambient temperature and dietary conjugated linoleic acid (CLA)*
- Certificate Graduate Certificate in College Teaching and Learning, University of Kentucky, Lexington KY (2004)
- MS Virginia Polytechnic Institute and State University, Blacksburg VA  
 Major: Food Science and Technology, (1998) GPA 3.8/4.0  
 Thesis: *Hydrodynamic Shockwave: Decreasing Broiler Breast Aging Time*
- BS Virginia Polytechnic Institute and State University, Blacksburg VA  
 Major: Animal Science, (1996) GPA 3.6/4.0

## **Honors**

- 2020 Distinguished Podium Presentation Award titled "Assessing volunteer worker's exposure to dust, metals, and bioaerosol during equine assisted activities/therapies" [21st Annual Pilot Research Project Symposium](#) hosted by the University of Cincinnati Department of Environmental and Public Health Sciences
- 2019 *First Place*, Team Grants Proposal for the Building Research Capacity Workshop; University of Cincinnati
- 2017/2018 *Dean's Tuition Scholarship*, University of Alabama, Birmingham
- 2017 *AALHE Conference Scholarship and Dues Award*, University of Kentucky
- 2015 *AALHE Annual Conference Award*, University of Kentucky
- 2016 College of Public Health *Outstanding Staff Member* of the Year Nominee
- 2014 Nominated *Outstanding Faculty* of the Year, Midway University
- 2009 Nomination for Humane Society of the United States *Animals and Society Course Award*; "Sociological Perspectives on the Equine Industry"
- 2005 *Ashland Grant Award* (Midway University); Ethics in the Equine Industry. Research and development of resource materials in ethics issues (\$250)
- 2002 University of Kentucky *Women's Club Scholarship* (\$2000)

## Research

### **Peer Reviewed Publications** \*indicates undergraduate student as author of original research

Keener MM, **Tumlin KI**, Heebner NR. Combined driving: task-specific position impacts grip strength of equestrian athletes. *European Review of Aging and Physical Activity*. 2022;19(2). <https://doi.org/https://doi.org/10.1186/s11556-021-00282-w>

**Tumlin, K.**; Liu, S.; Park, J.-H. Framing Future of Work Considerations through Climate and Built Environment Assessment of Volunteer Work Practices in the United States Equine Assisted Services. *Int. J. Environ. Res. Public Health*. 2021;18, 10385. <https://doi.org/10.3390/ijerph181910385>

Quintana, C., **K.I. Tumlin**, M. Hoch, N. Heebner, B. Grimshaw, and C. Mattacola. A Proposed Return to Ride Protocol for United States Jockeys Following Concussion. *Clin. Pract. Athl. Train.*2021;4(3):17-27. <https://doi.org/10.31622/2020/0004.3.4>

McGill S, Hayes M, **Tumlin K**, Coleman R. Characterization of indoor arenas through an anonymous survey. *Translational Animal Science*. 2021;5(4). <https://doi.org/10.1093/tas/txab198>

**Tumlin, K. I.**, Pekarchik, K., & Claas, S. Kentucky Equestrians: Defining Socioeconomic Contexts for Extension Programming. *The Journal of Extension*. 2021;59(3), Article 18. <https://doi.org/10.34068/joe.59.03.18>

McGill, S. Hayes, M., Coleman, R., and **K. Tumlin**. Human-horse interface: Metals in indoor horse arenas. 2021;Issue 6:ID-270. University of Kentucky Cooperative Extension Fact Sheet <http://www2.ca.uky.edu/agcomm/pubs/ID/ID270/ID270.pdf>

McGill, S., M. Hayes, **K.I. Tumlin**, R. Coleman, and J. Linhoss. Are Common Stall Fans Effective? Orientation, Placement, and Fan Style. 2020. UK Extension Publication ID 261. <http://www2.ca.uky.edu/agcomm/pubs/ID/ID261/ID261.pdf>

Hoover, A.G., A. Koempel, W.J. Christian, **K.I. Tumlin**, K.G. Pennell, S. Evans, M. McAlister, L.E. Ormsbee, and D. Brewer. Appalachian Environmental Health Literacy: Building Knowledge and Skills to Protect Health. *J. of Appalachian Health*. 2020;2(1):47–53. DOI: <https://doi.org/10.13023/jah.0201.06>

Mattacola CG, Quintana C, Crots J, **Tumlin KI**, Bonin S. Repeated Impacts Diminish the Impact Performance of Equestrian Helmets. *J Sport Rehab*. 2019;28(4):368-372. <https://doi.org/10.1123/jsr.2018-0355>

Mitchell, L\*, and **K.I. Tumlin**. A horse for Abby: Creating Bridges for Life Skill Learning. *Journal of Applied Learning in Higher Education*. 2014; 6:91-114.

**Tumlin, K.I.**, R. Linares, and M.W. Schilling. Student Motivation and Assessment of Applied Skills in an Equine Studies Program. *Journal of Applied Learning in Higher Education*. 2009; 1:93-108.

Franklin, S.T., Newman, M.C., Newman, K.E., and **K.I. Meek**. Immune parameters of dry cows fed mannan oligosaccharide and subsequent transfer of immunity to calves. *J. Dairy Sci.* 2005; 88:766-775.

**Meek, K. I.**, Claus, J. R., Duncan, S.E., Marriott, N.G., Solomon, M.B., Kathman, S.J., and Marini, M.E. Quality and sensory characteristics of selected post-rigor, early deboned broiler breast meat tenderized using hydrodynamic shockwave. *Poultry Sci.* 2000;79:126-136.

**Meek, K. I.**, Duncan, S. E., and Brochetti, D. Consumer perceptions and sensory characteristics in acceptance of nonfat milk. *Dairy, Food and Environmental Sanitation*. 1999;19:622-625.

#### *Abstracts*

**Tumlin, K.I.**, B. Turner, and J. Lyons. Adjustment to Traumatic Experiences in Children Aged 0-5 years. Council of State and Territorial Epidemiologists. Submitted for June 19-23, 2022.

**Tumlin, K.I.**, and M. Keener. Concussion Injury and Knowledge Differences Among Hispanic and non-Hispanic American Jockeys. Council of State and Territorial Epidemiologists. Submitted for June 19-23, 2022.

Keener, M., and **K.I. Tumlin**. Visuomotor Reaction Time of American Jockeys in Occupation-Specific Positioning. Submitted for June 19-23, 2022.

Keener, M., N. Heebner & **K. Tumlin**. Race Rider Performance Testing: Differences between Jockeys and Exercise Riders. American College of Sports Medicine. *Medicine and Science in Sports and Exercise*. 2021;53:(5) Supplement.

Keener, M., **K. Tumlin**, & N. Heebner. The Triple E Model: Advancing Equestrian Research with Perspectives from One Health. National Association of Equine Affiliated Academics. May 25-26, 2021 (Virtual Conference).

S McGill, **K. Tumlin**, M. Hayes, R. Coleman, & E. Haynes. Human-Horse-Environment Interface: Are there metals in indoor arenas? Does this impact human health? Equine Science Society Virtual Symposium. June 1-4, 2021.

**Tumlin, K.I.**, S. Liu, and J. Park. Protecting our resources: Characterizing volunteer work practices in Equine Assisted Activities and Therapies (EAAT). Professional Association of Therapeutic Horsemanship International, National Conference Proceedings (2021).

McGill, S., **K.I. Tumlin**, M. Hayes, and R. Coleman. How do equestrian facilities define and design indoor arenas? Professional Association of Therapeutic Horsemanship International, National Conference Proceedings (2021).

Keener, M. **K.I. Tumlin**, and N. Heebner. Combined Driving: Task-specific position impacts grip strength of equestrian athletes. ACSM National Conference. San Francisco, CA (Virtual Presentation May 2020).

<https://virtualmeeting.ctimeetingtech.com/acsm2020/attendee/eposter/poster/277?q=keener>

**Tumlin, K.I.**, K. Pekarchik, and M. Sama. Characterization of forces in equestrian sport to promote safety. Southeast Regional Research Symposium, Birmingham, AL. February 27-28, 2020.

**Tumlin, K.I.** Integrative horse performance: Promoting physical and behavioral wellness. Abstract in National Association Equine Affiliated Academics Proceedings. May 30-31, 2011, Murfreesboro, TN.

**Tumlin, K.I.**, and J.L. Holland. Transforming student perceptions: Infusing critical reflection and fostering student expression in Equine Studies. National Association Equine Affiliated Academics Proceedings. May 30-31, 2011, Murfreesboro, TN.

Holland, J.L. and **Tumlin, K.I.** Developing Evaluation Standards for Equine Programs – Is the Time Here? Abstract in National Association of Equine Affiliated Academics Proceedings, July, 25-27, 2010, Cazenovia, NY.

deBlanc, A.\* and **K.I. Tumlin**. Thermographic study of ultrasound and Equilight usage on the dorsal aspect of the horse. (Abs. 3) Midway College, Research Showcase, April 2007.

Harper, H.\* and **K.I. Tumlin**. Interaction between manual therapist and equine heart rate in quiet and stimulated environments. (Abs. 4) Midway College, Research Showcase, April 2007.

Holland, J.L., Brennen, T.\*, and **K.I. Tumlin**. Equine gender differences in time spent at pasture. (Abs. 7) Midway College, Research Showcase, April 2007.

Morgan-Cornett, C.\* and **K.I. Tumlin**. Motivation and job satisfaction of equine farm employees in central Kentucky. (Abs. 5) Midway College, Research Showcase, April 2007

Schwartz, K.\*, **Tumlin, K.I.**, and J.L. Holland. Herd dynamics of pastured horses regarding color preference. (Abs. 6) Midway College, Research Showcase, April 2007

Shively, J.\* and **K.I. Tumlin**. Effects of effleurage given at different pressures on equine heart rate in comparison to heart rate changes caused by grooming. (Abs. 2) Midway College, Research Showcase, April 2007.

Whisman, C.\* and **K.I. Tumlin**. A pictorial study of the horse's natural stance and the effects of human influence. (Abs. 1) Midway College, Research Showcase, April 2007.

**Meek, K.I.** and R. Marean. Assessment standardization of hands-on skills in Equine Studies courses. J. Anim. Sci. 84 (Suppl. 1): 503 (Abstr.)

Ware, J.V., S.T. Franklin, A.J. McAllister, J.A. Jackson, **K.I. Meek** and B.G. Cassell. Evaluation of immunological differences among Jersey, Holstein, and crossbred calves. Abstr. 114. Proceed. ASAS/ADS/CSAS Joint Meetings, Cincinnati, OH.

**Meek, K. I.**, R. Coleman, and M.W. Schilling. A model for distance learning: skills learning in an equine management course. Abstr. 287. Proc. Equine Science Society, Tucson, AZ.

**Meek, K. I.**, S.T. Franklin, L. Driedger, J.A. Jackson, M.W. Schilling, and M.T. Sands. Dietary conjugated linoleic acid affects the immune system of neonatal Holstein calves. J. Dairy Sci. Vol. 87 (Suppl. 2):76 (Abstr.)

M.T. Sands, S.T. Franklin, J.A. Jackson, L.J. Driedger, and **K.I. Meek**. Evaluation of the ability of dietary fish oil to maintain elevated conjugated linoleic acid (CLA) in milk from dairy cows through five months of lactation. J. Dairy Sci. Vol. 87 (Suppl. 1):72 (Abstr.)

Driedger, L. J., J.A. Jackson, **K.I. Meek** and S.T. Franklin. Effects of colostrum feeding time and sex on serum leptin and fatty acid metabolism in newborn Holstein calves. J. Dairy Sci. Vol. 85 (Suppl. 1): 217 (Abstr.)

Franklin, S.T., Newman, M.C., Newman, K.E., **Meek, K.I.**, and Jackson, J.A. Alterations in immune parameters of cows and calves from four weeks prior to parturition to parturition through 24 hours after birth. J Dairy Sci. (Suppl. 1):250. (Abstr.)

Franklin, S.T., and **K.I Meek**. Brief research update: Seasonal effects on immunity of dairy calves. Proc. Kentucky Rum. Nutr. Workshop, Lexington, KY. 2002.

Gill, N.R.\*, Powell, C., Franklin, S.T., and **Meek, K.I.** The effects of Echinacea on immune function of transitional calves. J. Dairy Sci. (Suppl. 1):407. (Abstr.)

### **Other Publications**

*\*indicates undergraduate student as author of original research*

McGill, S., **K. Tumlin**, M. Hayes, and R. Coleman. ID-270: Human-Horse-Environment Interface: Metals in Indoor Horse Arenas. 2021. Agricultural Extension.

<http://www2.ca.uky.edu/age/pubs/ID/ID270/ID270.pdf>

McGill, S., M. Hayes, **K.I. Tumlin**, and R. Coleman. Indoor Arena Survey Results. University of Kentucky, Agricultural Engineering Extension Updates. 2019; (AEU-106 <https://indd.adobe.com/view/becebf13-e471-4d1f-9929-dc14c0def177>).

**Tumlin, K.I.**, *Photosensitization in Horses*. KyPHC Summer Newsletter published June 2011.

Morgan-Cornett, C.\* and **Tumlin, K.I.** Motivation and job satisfaction of vary between native Spanish and English speakers. Thoroughbred Times. 2008.

**Meek, K. I.** Teaching and assessment of hands-on skills through use of rubrics as critical thinking tools. *An Examined Life*. Midway College. Spring 2006:6-8.

Franklin, S.T., and **Meek, K.I.** Research update: Temperature affects immunity. Kentucky Dairy Notes, December. 2002.

**Meek, K.I.** Pool Cues. The Mane Points. Fall 2002.

Colnar, R. and **Meek, K.I.** Beat the heat: Common sense helps beat the summertime blues. The Mane Points. Spring 2001.

Colnar, R. and **Meek, K.I.** Touch Toning. The Mane Points. Fall 2001.

### **Presentations**

*\*indicates undergraduate student as author of original research*

#### ***International***

**Tumlin, K.I.** Health and Performance: Merging science, business and the horse for education and success in the Equine Industry. Invited Presentation and Demonstration. Third Annual Faculty and Student School of Veterinary Medicine Conference. Universidad de Panama, Panama City, Panama. 2013.

**Tumlin, K.I.** Kentucky, USA: An overview of the Equine Industry and Opportunities for Students, Faculty and Businesses. Invited Presentation. Third Annual Faculty and Student School of Veterinary Medicine Conference. Universidad de Panama, Panama City, Panama. 2013.

**Meek, K.I.**, Claus, J.R., Marriott, N.G., and Solomon, M.B. Tenderizing non-aged broiler breasts through hydrodynamic shock waves. Presentation at the International Conference of Meat Science and Technology. Barcelona, Spain. 1998.



## ***Domestic***

**Tumlin, K.** Demystifying outcomes from equine-assisted interventions. Invited Speaker. Horses and Humans Research Foundation Annual Conference. October 30, 2021. Spindale, NC.

**Tumlin, K.** One Health Certificate Program. UK Equine Research Showcase, February 9, 2021, Lexington, KY.

**Tumlin, K.** and M. Keener. Integrating public health and sports medicine to advance equestrian health. Round Table Presentation for the UK Equine Forum. October 23, 2020.

**K. Tumlin.** Assessing volunteer workers' exposure to dust, metals, and bioaerosol during equine assisted activities/therapies. October 1, 2020 for the UC Pilot Research Program, Cincinnati Ohio.

Keener, M. and **K. Tumlin.** Sports Medicine Applied to Combined Drivers. Presentation to the Spokes N' Spurs/American Driving Association Forum. January 12, 2020.

McGill, S., M. Hayes, **K. Tumlin,** and R. Coleman. Indoor Arena Survey Results. Northern Kentucky Equine Conference Proceedings. Burlington, KY. November 9, 2019.

**Tumlin, K.I,** S. Liu, J. Park, and E.N. Haynes. Proposal for assessing volunteer workers' exposure to dust, metals, and bioaerosol. Presentation to the University of Cincinnati Pilot Research Project Symposium, October 10, 2019, Cincinnati, OH.

Hoover, A.G., **K.I. Tumlin,** and Ormsbee, L.O. "Nor any drop to drink": revealing water resources knowledge and concerns in Appalachian Eastern Kentucky. Poster session presented at the annual meeting of the National Institute of Environmental Health Sciences Environmental Health Sciences Core Centers in Iowa City, IA.

**Tumlin, K.I.** Jockey Health: What are *YOUR* risk perceptions and wellness factors? Presentation for the Jockeys' Guild 2018 Annual Assembly, December 10, 2018, Las Vegas, NV.

Hoover, A.G., **K.I. Tumlin,** and L. Ormsbee. Assessing Environmental Health Literacy among Appalachian Technical Stakeholders. Presentation for the P30 External Advisory Board Meeting, May 2, 2018. Lexington, KY.

**Tumlin, K.I.,** A. Perkins, and J. Sumner. Leveraging content management framework for assessment compliance and reducing faculty burden. Seventh Annual AALHE Conference. June 12-14, 2017, Louisville, KY.

**Tumlin, K.I.** and I. Lapp. Reexamining the Undergraduate Baccalaureate, MPH, and DrPH in light of workforce needs and employer expectations. ASPPH Sections' Retreat. June 24-26, 2015, Park City, UT.

Mitchell, L.A.\* and **K.I. Tumlin**. Horses Make Me Smile: A Transition from the Lead Rope to the Reins. Presentation at the 8<sup>th</sup> Annual Conference on Applied Learning in Higher Education, March 21-23, 2013, St. Joseph, MO.

**Tumlin, K.I.**, Ponce, R. and R.M. Linares. Student and Faculty Enrichment: Exploring cross-cultural opportunities in collaboration at Midway College. Presentation at the 8<sup>th</sup> Annual Conference on Applied Learning in Higher Education, March 21-23, 2013, St. Joseph, MO.

Linares, R.M. and **K.I. Tumlin**. Preventing the loss of applied course aspects when adapting an in-seat course to online format. Presentation the 8<sup>th</sup> Annual Conference on Applied Learning in Higher Education, March 21-23, 2013, St. Joseph, MO.

**Tumlin, K.I.** and L.A. Mitchell\*. Horses Make Me Smile: Sharing, learning and change with horses. Presentation at the 7<sup>th</sup> Annual Conference on Applied Learning in Higher Education, March 22-24, 2012, St. Joseph, MO in the Student/Mentor division.

**Tumlin, K.I.**, and J.L. Holland. Infusing critical reflection and fostering student expression in Equine Studies. Poster Presentation. 6<sup>th</sup> Annual Conference on Applied Learning in Higher Education, February 25-26, 2011, St. Joseph, MO.

Holland, J.L. and **K.I. Tumlin**. Leadership portfolios as a method to document experiences and competencies in Equine Education. Presentation at the: National Association Equine Affiliated Academics Proceedings. May 30-31, 2011, Murfreesboro, TN.

**Tumlin, K.I.**, and J.L. Holland. Globalizing Equine Studies: Fostering Critical Reflection on Controversial Topics. Poster Presentation. Second meeting of the National Association of Equine Affiliated Academics, July, 25-27, 2010, Cazenovia, NY.

**Tumlin, K.I.**, J.L. Holland, M.W. Schilling, and R. Coleman. Student perception and learning of applied skills: live demonstration versus diagrammatic description. Poster Presentation. 5<sup>th</sup> Annual Conference on Applied Learning in Higher Education, February 19-20, 2010, St. Joseph, MO.

**Tumlin, K.I.** and J.L. Holland. Fostering synthesis and evaluation skills in fourth-year Equine Studies students. Poster Presentation. National Association of Equine Affiliated Academics, May 28-29, 2009, Keystone CO.

**Tumlin, K.I.** and J.L. Holland. Equine Senior Seminar: A fusion of career and academic skills. Poster Presentation. National Association of Equine Affiliated Academics, May 28-29, 2009, Keystone CO.

**Tumlin, K.I.** Somesthetic and kinesthetic learning: Teaching sensory perception in equine studies. Poster Presentation. 4th Annual Conference on Applied Learning in Higher Education, February 19-20, 2009, St. Joseph, MO.

Holland, J.L. and **K.I. Tumlin**. Applied Learning in Equine Studies: the Use of Visual Arts in Student-Centered Learning. Poster Presentation. 3<sup>rd</sup> Annual Conference on Applied Learning in Higher Education, February 2008.

**Tumlin, K.I.** Student motivation in equine studies skills learning: “Just tell us what is on the test!” Poster Presentation. 3<sup>rd</sup> Annual Conference on Applied Learning in Higher Education, February 2008.

Linares, R. and **K.I. Tumlin**. Assessment and teaching tools in an Equine Studies curriculum. Poster Presentation. 3<sup>rd</sup> Annual Conference on Applied Learning in Higher Education, February 2008.

Richards, R., **K.I. Meek**, E. Vaughn, and J. Holland. The START model for effective advising: Systematic Training in Advising Responsiveness and Technology. NACADA Region 3 Conference, Nashville, TN. March 19-21, 2006.

**Meek, K. I.**, Claus, J. R., Marriott, N.G., Duncan, S.E., and Solomon, M.B. Hydrodynamic shock wave: Decreasing broiler breast aging time. 51<sup>st</sup> Recipr. Meat Conference, Storrs, CT. 1998.

**Meek, K.I.**, Claus, J.R., Solomon, M.B., and Staton, E. Tenderizing non-aged broiler breasts using the Hydrodyne process. Russell Research Center, Athens, GA. 1997.

**Meek, K.I.**, Claus, J.R., and Solomon, M.B. Tenderizing non-aged broiler breast meat using the Hydrodyne process. ARS, USDA Beltsville Poultry Research Day, Beltsville, MD. 1997.

### **Active Research Support**

NLM G08LM013185

09/09/2019-5/31/2022

NIH: *Integrating Information Resources to Promote Environmental Health Literacy in Appalachian Kentucky*

This project aims to evaluate existing environmental health-related risk maps to determine resource accessibility, understandability, and perceived utility for Appalachian Kentuckians.

Role: Co-Investigator

Equestrian Athlete Initiative (Kentucky Legislatively Funded Program)

07/01/2020-12/31/2022

- Concussion Reporting Perceptions Survey
- Jockey Risk Perceptions and Motivation Survey
- Collegiate Athlete Concussions and Return to Learn/Play/Ride Program
- EqA and RACER Registries

**Completed Research Support**

T42 OH010278-01

Central Appalachian Regional Education and Research Center 07/01/2020 – 6/30/2021

NIOSH: *Functional stability and fatigue risk factors in high-performing occupational equestrian athletes*

This project addresses gaps in understanding how/if fatigue affects functional stability of riders. Secondly, we address how lifestyle characteristics could be detrimental to equestrian athlete health for various demographic groups. Understanding these differences will inform future interventions such as health protective policies or health promotion campaigns.

Role: Principle Investigator

T42OH008432

University of Cincinnati Education and Research Center 08/01/2019-12/31/2020

NIOSH: *Assessing volunteer workers' exposure to dust, metals and bioaerosol during equine assisted activities/therapies*

This project aims to evaluate volunteer workers' exposure to dust, metals and bioaerosol as a result of performing tasks in equine assisted activities/therapies (EAA/T). A mixed methods approach to quantifying exposure to airborne contaminants including respirable dust, metals on the respirable dust, and total airborne bacteria measured by a novel bioaerosol sampler will be conducted.

Role: Principle Investigator

T42OH010278-01

Central Appalachian Regional Education and Research Center 10/01/2018 – 6/30/2019

NIOSH: *Characterization of real and simulated forces on back biomechanics to promote safety in horse racing jockeys*

In this study a novel wearable sensor system was developed. Baseline biomechanical forces of riders in various positions and feasibility of use in live, and simulated riding environments was evaluated.

Role: Principle Investigator

**Professional Development and Service**

*University of Kentucky*--National and International

2021 Equine Research Ecosystem Summit, Invited Participant, November 2-3, 2021 (Virtual)

2021 Animal assisted interventions: considerations for program proposals, evaluation and development Continuing Education Course (1.5 CEU)

- 2021 Healing and Learning Through Equine Relationships (HALTER), SC Research and Planning Committee Member
- 2021 Human-Animal Interaction Section 13 of Division 17 of the American Psychological Association—International Member
- 2020 John Hopkins Summer Institute
- a. 340.694.89 Power and Sample Size for the Design of Epidemiological Studies
- b. 340.765.89 Professional Epidemiologic Methods: Epidemiologic intelligence and Population Health Assessments
- 2020 The Lancet One Health Commission, Reconnecting our Future Webinar Training
- 2018 Using NASA EOS Data for Monitoring and Response to Vector-borne and Water-borne Diseases, Training
- 2018 Co-Founder of Female Equestrian Health and Wellness Network  
<https://www.uky.edu/equestrians/> with 2021 consensus statement in the [Equine Science Review](#).
- 2018 Vector borne and water related disease, Workshop, Wilson Center Science and Technology Innovation Program
- 2016-2018 Critical Thinking; Multistate Collaborative VALUE Project; *Online National Scorer*
- 2016-2018 Association for the Assessment of Learning in Higher Education
- 2016 American Public Health Association, *Member*

*University of Kentucky—Local*

- 2021 Sports Medicine Research Institute Annual Review (member)
- 2020-2021 One Health Certificate Committee for Department of Epidemiology
- 2020 University of Kentucky Department of Nutrition and Dietetics Program Review Committee
- 2019-2020 Online Teaching Committee for College of Public Health
- 2019 Preventive Medicine and Environmental Health Department Faculty Search Committee
- 2018-2019 MPH Curriculum Redesign—Environmental Health Concentration Member
- 2018-2019 Periodic Review Redesign Steering Committee Member (University Service)
- 2016-2018 Health Colleges Analytics Team, *Member*
- 2018 CEPH Webinar, Compliance Reporting Best Practices, March 30, 2018
- 2017 College of Human Health Sciences, University Periodic Administrative Review, *External Review Committee Member*
- 2015 Association of Schools & Programs of Public Health, Academic Affairs Section

*Midway University--National and International*

- 2013 Integrative Equine Health, Universidad de Panama, Panama City, Panama, *Clinician*
- 2009-2012 National Association of Equine Affiliated Academics, *Planning Committee*
- 2006 EAGALA national training for Level 1 Certification in Equine Assisted Psychotherapy, *Event Planner*

2004-2014 American Quarter Horse Society, *Member*  
 2004-2008 American Society of Animal Scientists, *Member*  
 2008 International Equine Studies Online Curricular Proposal, *Leader*

*Midway University—Local*

2014 Lexington Sunrise Rotary Club, International/Internship *Discussion Leader*  
 2012-2013 Strategic Planning Leadership Team  
 2010 Hearing Committee  
 2010 State 4-H Dressage, *Judge*  
 2010 Madison County Fair Halter and Trail, *Judge*  
 2009 Critical Thinking Development, *Leader*  
 2008-2011 Research Ethics and Review Board  
 2008 Rank and Tenure Committee  
 2006-2009 Faculty Curriculum Committee  
 2006-2008 General Education Committee  
 2006-2007 Equine Overnight, *Faculty Organizer*  
 2006-2007 President's Award Committee  
 2006, 2009 State 4-H Drill Team, *Judge*  
 2006 Hearing Committee, *Chair*  
 2006 College Giving Campaign, *Faculty Chair*—Achieved *100% Participation* in 14d  
 2005-2006 Cross-disciplinary Faculty Book Club, *Founder and Leader*  
 2005-2006 Who's-Who Among Students Nomination Committee  
 2005-2006 Baldridge Quality Assessment Improvement, Student/Stakeholders Team  
 2004-2014 Equine Studies Faculty Advisor

**Teaching**

*2020-Current at University of Kentucky*

- Course in development: **CPH 616 One Health Systems** (target offering Summer 2022)  
 Using a One Health Systems lens, this course explores how human, animal, plant, environmental, and ecosystem health are interconnected. The field of One Health is recognized by the Centers for Disease Control as an important approach to understanding existing and emerging disease, as well as how disruptions in environmental or animal health can directly impact the economic, social, and cultural aspects of human health. This course is divided into three modules. The first emphasizes approaches to the complexity of One Health Systems including upstream drivers of disease potential. The second module will focus on macro-level relationships in One Health practice. The final module will address contemporary topics affecting health. This course is a blended experience of recorded instructor lectures, guest speakers, recordings of conference proceedings, independent reading of articles, and case studies to explain the constructs of One Health Systems in local, national, and global perspectives.

- VS 597/CPH 565 Special Topics: Research on Equestrian Health (Spring 2018—Co-Instructor)

This course of study will provide students with the opportunity to engage in interdisciplinary teams that will explore, recognize, and assess issues around equestrian/horse handler health including but not limited to social, physical, and general health risks across of a wide spectrum of topics related to recreational and professional equestrianism. Course activities will include interactions with domestic and global leaders in various sectors of equestrian/horse handler health and reviewing existing resources on this topic. The course will provide experience conducting a literature review as well as improving knowledge acquisition, management, and communication skills in preparation for capstone project, thesis, dissertation, or similar project. Students may also be required to engage in direct, on-site observations in addition to regular course meetings as part of the course requirements.

- Guest Lecturer
  - EQM340 Equine Facility Design and Management (Spring 2021) *Equestrian Biosecurity and Zombie Pandemics*
  - EQM340 Equine Facility Design and Management (Spring 2020) *Equestrian Facility Design and COVID-19*
  - EQM351 Equine Health and Diseases (Spring 2020) *The Global Horse: Zoonotic disease and biosecurity*
  - CPH561 Insects Affecting Human and Animal Health (Fall 2019) *One Health: At an intersection of zoonotic disease*

### Student Mentoring Committees—Thesis, Capstone and Dissertation

Student Name	Role	Degree/Course	Timeframe
Michaela Keener	Co-Chair	PhD (Athletic Training and Clinical Nutrition)	Degree expected May 2024
Staci McGill	Member	PhD (Biosystems Engineering)	Degree expected May 2023
		MS (Biosystems Engineering)	May 2019
Kayah Pura, Kianna Reinert	Faculty Mentor	CPH 395 Public Health Research	Spring 2022
Layne Singer, Grayson Hill, Gavin Vice, Nicole Palatas	Faculty Mentor	HHS 455 Undergraduate Research	Fall 2021
Hadleigh Hammer	Faculty Member	HHS 455	Spring 2021

Student Name	Role	Degree/Course	Timeframe
		Undergraduate Research	
Brooke Spillman	Member	MPH (EPI)	May 2021
Kaelyn Short	Member	MPH (EPI)	May 2021
Sam Day, Christina Herrold, Lauren Bell, and Maria Menendez Morales	Faculty Mentor	BAE 402 Senior Team Problem (Wearable sensor technologies)	AY 2017-18
Emma Benedict, Meaghan Dunn, Kali Sebastian, Christina Zhang	Faculty Mentor	BAE 402 Senior Team Problem (Equestrian sport safety equipment)	AY2016-17
Kyle Hancock	Faculty Mentor	UG Honors Capstone Project <i>Refugee Mental Healthcare: Barriers to Access and Utilization</i>	AY 2014-15
Angela Rudnicki	Faculty Mentor	UG Honors Capstone Project <i>Comparing Qualitative and Quantitative Methodologies: A Study on Rural Orphan Care</i>	AY 2014-15

2010-2014 as Associate Professor at Midway University

Course levels 100 = first year

Course title	Number	Credits	Enrollment	Academic Year
Introduction to the Equine Industry	EQS 165	3	50	2010-2011
			33	2012-2013
			32 (online)	2012-2013
			50	2013-2014
Healthcare Management	EQS 214	3	17 (online)	2010-2011
			30 (online)	2012-2013
			35 (online)	2013-2014
Equine Reproductive Management	EQS 307	3	20	2010-2011
Animal Ethics, Welfare, Rights and Law	EQS 411	3	21	2010-2011



Course title	Number	Credits	Enrollment	Academic Year
Agricultural Facility Design	EQS 412	3	16	2010-2011
Equine Senior Project	EQS 494	2	19 (online)	2010-2011
Equine Senior Seminar	EQS 495	1	19	2010-2011

*2004-2010 as Assistant Professor at Midway University*

Course title	Number	Credits	Enrollment	Academic Year
Equine Practicum/Introduction	EQS 101	1	29	2004-2005
			59	2005-2006
Equine Practicum/Handling	EQS 102	1	55	2004-2005
Equine Practicum/Healthcare	EQS 103	1	24	2004-2005
Equine Practicum/Management	EQS 104	1	15	2004-2005
			15	2005-2006
			16	2006-2007
Introduction to the Equine Industry	EQS 165	3	63	2004-2005
			44	2008-2009
			42	2009-2010
Current Topics in Equine Management	EQS 210	1	7	2007-2008
Introduction to Journalism	ENG 211	3	1	2006-2007
Principles of Horseshoeing	EQS 276	3	25	2004-2005
Experiential Education with Horses	EQS 300	3	7	2008-2009
Special Topic: Ethics, Mental Health, and Welfare	ENG 309	1	21	2006-2007
Professional Writing	ENG 312	3	1	2006-2007
Farm Records Management	EQS 321	3	37	2004-2005
			12	2005-2006
			43	2006-2007
			20	2007-2008
			18 (Online)	2007-2008
Reproduction and Breeding	EQS 354	3	18	2008-2009
Manual Therapies	EQS 369	2	6	2004-2005
			7	2005-2006
			14	2006-2007
			10	2008-2009
Equine Evaluation and Selection	EQS 370	3	14	2004-2005
			16	2005-2006
			12	2006-2007
Physical Integration	EQS 372	3	8	2009-2010
Farm Management	EQS 378	3	5	2004-2005

Course title	Number	Credits	Enrollment	Academic Year
			13	2006-2007
			20	2008-2009
			15	2009-2010
Physical Agents	EQS 380	3	8	2009-2010
Clinical Education	EQS 398	2	1	2006-2007
			3	2008-2009
Reading and Understanding	EQS 400	2	9	2005-2006
Published Research			9	2006-2007
			2	2007-2008
			9	2008-2009
			11	2009-2010
Special Topic: Funding your Agricultural Business	EQS 409	1	1	2005-2006
Clinical Education II	EQS 452	2	2	2008-2009
			8	2009-2010
Clinical Education III	EQS 453	2	2	2008-2009
Equine Senior Project	EQS 494	2	23	2008-2009
			16	2009-2010
Equine Senior Seminar	EQS 495	1	23	2008-2009
			9	2009-2010
Senior Capstone: Therapeutic Agents	EQS 496	3	7	2005-2006
			10	2006-2007
Senior Capstone: Equitation Instruction	EQS 497	3	2	2008-2009
Senior Capstone: Management	EQS 498	3	3	2005-2006
			13	2006-2007
			18	2007-2008
			17 (Online)	2008-2009