

T. Luise King, DVM, PhD

1580 East Hanley Blvd, University of Arizona, College of Veterinary Medicine, Oro Valley, AZ
573.529.2181 ▪ tluiseking@email.arizona.edu

CHRONOLOGY OF EDUCATION

- **PhD** **Biomedical Sciences, *University of Missouri*** *2013*
Dissertation: Neural control of cardiorespiratory systems during health and disease
Advisor: Dr. Eileen Hassler, PhD
Teaching Emphasis: Veterinary anatomy/histology and physiology
- **DVM** **Veterinary Medicine, *University of Missouri*** *2008*
Cum Laude
- **BS** **Animal Sciences, *University of Missouri*** *2005*
Summa Cum Laude

BOARD CERTIFICATIONS and LICENSES

Current Arizona Veterinary License

Current National DEA License

USDA National Accredited Veterinarian

AVMA Member

CHRONOLOGY OF EMPLOYMENT/ACADEMIC EMPLOYMENT

- **Assistant Professor** *2019-present*
University of Arizona, College of Veterinary Medicine
 - Build clinically relevant course content geared toward "day-one-ready" veterinarians
 - Lead several organ system courses, developing and participating in clinical skills training and simulation-based education labs
 - Participate as a team member in the design, development, and delivery of the pre-clinical curriculum
 - Deliver curriculum content to veterinary students within the CVM vision of inclusive, evidence-based Team-Base Learning and Peer Instruction pedagogy, in which students take substantial ownership of their learning, and student classroom time is focused on the collaborative application of content (as opposed to a focus on delivery of content)
 - Provide out-of-classroom availability to diverse cohorts of veterinary students for extra-curricular opportunities to assist students
 - Contribute to the clinical year training by leveraging surgical experience in small animal and large animal surgery
 - Engage in the CVM collegial community, the participation in shared governance, advisory committees, and academic/professional society meetings
- **Emergency Veterinarian** *2016-present*
Southern Arizona Veterinary Specialty and Emergency
 - Provided high quality patient and client care in an emergency setting
 - Worked cooperatively and successfully with veterinary medical specialties
 - Educated clients about equine and companion animal diseases/conditions
 - Coordinated the hospital intern and extern program
 - Mentored 24 upper level university students while they completed externship hours for veterinary school
 - Participated in monthly continuing education seminars
 - Led clinical trial studies on rattlesnake antivenin products
- **State Lead Veterinarian** *2017-present*
BLM Wild Horse and Burro Training and Holding Facility
 - Established collaboration with the University of Arizona and facility to allow field service opportunities for students
 - Collaborated with state BLM leads on various animal health projects

- Provided all veterinary care including emergency care for facility of >1000 horses
 - Worked with national veterinarians to establish herd health preventative strategies
- **Veterinary Consultant for Los Angeles Animal Care and Control** 2019-2021
Los Angeles Animal Care and Control
- Evaluated the 12 ASPCA standards at all seven shelter locations in Los Angeles, CA county
 - Provided specific recommendations to help veterinary teams in the areas of record keeping, medical health and wellbeing of animals, behavioral health, group housing, animal handling, euthanasia, spay and neuter, animal transport, and public health
- **Professor of Practice** 2015-2019
University of Arizona, School of Animal and Comparative Biomedical Sciences
- Created critical thinking activities, assignments and quizzes that encouraged students to appreciate connections between anatomy, physiology, and clinical applications of the material; promoted an awareness of one health
 - Provided extra-curricular and hands-on activities and opportunities for students outside of the classroom
 - Mentored 33 preceptorships students and 14 honors college projects
 - **Service:** Curriculum committee, Diversity and Inclusion committee
 - **Established** several partnerships with equine facilities/owners and the university
 - Initiated professional collaborative projects with:
 - Veterinary clinics in Tucson, AZ including **Jackpot Veterinary Hospital**
 - Led to submission of research paper to AAEP Annual conference
 - **Graduate student committees:**
 - Katie Bernal: “The Relationship between the Wild Horse Inmate Program and Recidivism”
- **Equine/Large Animal and Exotics Instructor** 2014-19
Veterinary Technology Program, Pima Community College
- Equine/Large animal clinical instructor
 - Established >50 community partnerships for equine field service work
 - Taught veterinary techniques and diseases; enabled students to perform all AVMA skills for veterinary nurses
 - Courses taught:
 - VET 210:** Large Animal Medicine and Veterinary Nursing Procedures
 - VET 211:** Lab Animals, Avian, Exotic, Wildlife and Zoo Medicine and Veterinary Nursing Procedures
- **Volunteer Veterinarian** 2018-present
Tucson Wildlife Center
- Performed physical exam, triage, treatment and surgical procedures for all incoming cases
 - Provided veterinary care for injured wildlife and animals undergoing rehabilitation for release
 - Work in partnership with staff in capturing sick/injured wildlife and releasing rehabilitated animals
- **Professor of Biology** 2014-17
Division of Sciences, Central Arizona College
- Mentored a diverse group of rural students in a rural community in Arizona
 - Supervised laboratory work-study students
 - Promoted student success by making myself available to students outside of classroom through Remind, special appointments, and review sessions before exams
 - Secured InSpark Network Grant for Beyond Biology Online Course - \$25,000
 - Courses taught:
 - BIO 205:** Microbiology
 - BIO 201/202:** Anatomy and Physiology
 - BIO 160:** Introduction to Anatomy and Physiology; hybrid course with online lecture/hands on lab
 - BIO 181/182:** Biology
 - ENV 101:** Introduction to Environmental Sciences
- **Educational Outreach Specialist** 2014-16
Biosphere II, University of Arizona
- Developed educational outreach programs and curriculum through the Marine Science Laboratory
 - Presented educational outreach programs in climate change, water resources, biodiversity, etc. to students
- **Microanatomy/Histology, Graduate Instructor** 2011-12
Department of Biomedical Sciences, University of Missouri

- Led laboratories for 120 first year veterinary professional students
 - Advised students in clinical applications of material, oversaw and graded exams
- **Veterinary Physiology, Graduate Instructor** 2008-'12
Department of Biomedical Sciences, University of Missouri
 - Designed weekly lab sessions through computer models and demonstrations to clarify advanced neuroscience, cardiovascular and respiratory physiological principles
 - Evaluated student progress with the mastering of select activities
 - **Associate Veterinarian/Veterinary Externship** 2008-09
Veterinary Clinic of the Mineral Area, Farmington, MO
 - Acquired a complete set of skills required to work in a modern mixed animal veterinary clinic
 - Duties included surgeries, vaccinations, client education, anesthesia, radiology, treatments, diagnostics, triage
 - **Preparing Future Faculty Program** 2008-09
University of Missouri
 - Yearlong series of activities that exposed me to the realities of teaching, and service in higher education
 - Increased my readiness to assume a faculty role within academic/ professional contexts
 - Learned about the diversity of expectations that exist at different higher education institutions.
 - **Dialogues on Science, Technology and Society Instructor and Developer** 2008
Honors College, University of Missouri
 - Created this discussion-based class to engage students in issues at the juncture of science and public policy

HONORS AND AWARDS

Collegiate Livestock Growers Association Faculty Award , University of Arizona	2019
Above and Beyond Award , School of Animal and Comparative Biomedical Sciences, University of Arizona	2017
Faculty of the Year Award , Central Arizona College	2015, 2017
Superior Graduate Student Award , University of Missouri	2013
Caroline Tum Suden Professional Opportunity Award , American Physiological Society	2012
Video Contest Winner , American Physiological Society	2012
Health Sciences Graduate Student Association Travel Award	2012
Phi Zeta Poster and Oral Presentation Awards	2005-'11
Cardiovascular Day Poster Award -1 st place graduate student	2011
Groth Student Research Award in Veterinary Medicine	2008
Rhoads Scholar in Veterinary Medicine	2007
Simmons and Associated Educational Business Award	2006

PUBLICATIONS/CREATIVE ACTIVITY

- Collaborated with Dr. Lago-Alvarez and Canisso at University of Illinois to publish the following study:
Lago-Alvarez Y, Podico G, Segabinazzi LG, Cunha LL, Barbosa L, Arnold CE, Lima FS, King LT, McLean AK, Canisso IF. Donkey Epididymal Transport for Semen Cooling and Freezing. Animals (Basel). 2020 Nov 25;10(12):2209. doi: 10.3390/ani10122209. PMID: 33255737; PMCID: PMC7759917.
- Collaboration with Dr. Kane and Dr. Juris at Texas A&M on genetic testing in wild horses and burros (ongoing)
- Submitted study with Ms. Katie Bernal on The Relationship between the Wild Horse Inmate Program and Recidivism: A case study on the affect of animal interaction on inmates at the Florence, Arizona State Correctional Center
- Collaborating with Dr. Renquist and Analisa Del Grosso on UA funded Invention Project # UA20-244 - Air Extruded Pet Food to Promote Weight loss(ongoing)
- **Graduate Research Assistant** 2008-'13
Department of Biomedical Sciences, University of Missouri
 - **Main Project:** Investigating neuronal regions and their role in environmental and cardiorespiratory challenges
 - **Funding Support:**
NIH, Predoctoral Fellowship Award, T32, University of Missouri 2010-'12
"Central Effects of Acute Hypoxia"

- Amount: \$32,000/year
- Phi Zeta Grant Award, University of Missouri** 2009-'10
 "Colocalization of markers to track effects of blood pressure on nucleus tractus solitarius neurons."
 Amount: \$750
- Phi Zeta Grant Award, University of Missouri** 2008-'09
 "Immunohistochemistry of the rat paraventricular nucleus of the hypothalamus after hindlimb unloading."
 Amount: \$750
- **Peer Reviewed Journal Articles and Invited Oral Presentations:**
1. Catecholaminergic neurons projecting to the paraventricular nucleus of the hypothalamus are essential for cardiorespiratory adjustments to hypoxia. *Am J Physiol Regul Integr Comp Physiol*. 2015.
 2. Hypoxia-induced changes in the caudoventral lateral medulla (CVLM) neurons that project to the paraventricular nucleus (PVN). *Am J Physiol Regul Integr Comp Physiol*. 2013.
 3. Increasing Hypoxia Augments Fos Expression in Hypothalamic Paraventricular Nucleus (PVN)-Projecting Neurons in the Nucleus of the Tractus Solitarius (nTS). *Am J Physiol Regul Integr Comp Physiol*. 2012.
 4. Sensory afferent and hypoxia-mediated activation of nucleus tractus solitarius neurons that project to the rostral ventrolateral medulla. *Neuroscience*. 2010.
 5. Federation of American Societies for Experimental Biology - Summer Research Conference Neural Mechanisms in Cardiovascular Regulation - "Central Effects of Acute Hypoxia" 2011
 6. Experimental Biology Conference, Anaheim, CA 2010
 Neural Control and Autonomic Regulation Featured Topic - "Central Effects of Increasing Hypoxia"
- **Veterinary Research Assistant** 2012-
 Kruger National Park, Selati Game Reserve, Kingdom Nature Reserve South Africa
- *Projects:* Radio telemetry of cheetah movement; Rhino dehorning, Elephant collaring, Identification of malignant catarrhal fever in Wildebeests, Developing vaccination protocols for MCF
 - *Skills acquired:* Clinical skills required to work on a variety of wildlife, exotic, and large animals
- **Veterinary Research Rotation** 2006-'08
Research Animal Diagnostic Laboratory, University of Missouri
- *Project:* Designed a PCR test for a rodent parvovirus, found subclinically in many research animal facilities
 - *Skills acquired:* DNA and RNA extractions, real time-polymerase chain reaction (RT-PCR), histology
- **Merck Merial Veterinary Scholars Research Program** 2004-'08
College of Veterinary Medicine, University of Missouri
- *Project:* Investigated the role of forebrain nuclei during inactivity
 - *Skills acquired:* hindlimb-unloading rat model, immunohistochemistry
- **Life Science Undergraduate Research Fellow** 2004-'05
Brody Environmental Center, Department of Animal Sciences, University of Missouri
- *Project:* Fescue toxicosis and its effects on the reproduction and thermoregulatory systems of cattle
 - *Skills acquired:* Telemetry, environmental physiology measurements
- **Research Assistant** 2002-'04
 Swine Nutrition Laboratory, Department of Animal Science University of Missouri
- *Project:* Improve swine production efficiency by reducing nutrient excretion
 - *Skills acquired:* Calorimetric measurements, determine nutrient content of feeds

ACADEMIC SERVICE AND OUTREACH ACTIVITIES

Admissions Committee , University of Arizona CVM	Member	2020-
Advisor to Food Animal Club , University of Arizona CVM	Advisor	2020-
Advisor to Emergency and Critical Care Club , CVM	Advisor	2020-
Search Committee, Anatomy , University of Arizona – CVM	Member	2020-
Curriculum Committee , University of Arizona -ACBS	Member	2017-2019
Diversity and Inclusion Committee , University of Arizona	Member	2017-2020
State FFA Career Development , Veterinary Science Event	Chair	2017-present
Science Outreach Nonprofit , Supper with a Scientist	Advisory Board	2018- present
VIDA Organization , University of Arizona	Advisor	2016- present

Volunteers Around the World Organization , University of Arizona	Advisor	2018- 2020
College for Kids , Central Arizona College	Instructor	2016- <i>present</i>
Alan Alda Science Communication Workshop	Participant	2019
Animal Care and Use Committee , American Physiological Society	Member	2013-'16
STEM Outreach Representative , Central Arizona College	Aravaipa Campus	2015-'16
Faculty Senate , Central Arizona College	Member	2014-'16
Outreach Committee , Central Arizona College	Committee Member	2014-'16
Adjunct Faculty Representative , Pima Community College	East Campus Representative	2014-'16
Campus Strategic Action Plan , Pima Community College	Committee Member	2014-'16
Graduate Student Peer Mentor Program , University of Missouri	Mentor and Founder	2010-'13
Graduate Professional Council & Graduate Student Association	Department representative	2009-'13
Heath Sciences Graduate Student Association	Secretary and member	2008-'13
Biomedical Sciences and College of Veterinary Medicine	Ambassador	2004-'13
Brain Awareness Week	Program Chair	2008
Veterinary Business Management Association	Founder and secretary	2006-'08

PROFESSIONAL AND HONORARY AFFILIATIONS

American Veterinary Medical Association		2004- <i>present</i>
Arizona Veterinary Medical Association		2016- <i>present</i>
American Physiological Society		2008- <i>present</i>
Phi Zeta Honor Society of Veterinary Medicine		2006- <i>present</i>
Rollins Honor Society - University of Missouri		2011- <i>present</i>
Omicron Delta Kappa - National Leadership Honor Society		2012- <i>present</i>

COMMUNITY ACTIVITIES AND INTERESTS

Therapeutic Ranch for Animals and Kids	Board Member and Volunteer
Tucson Botanical Gardens	Volunteer
Columbia Center for Urban Agriculture	Volunteer
University of Missouri Collegiate Triathlon Team	Founder and president
University of Missouri Club Sports	Athlete of the Year
Ironman triathlete (completed 5 Ironman)	Finished 1 st and 2 nd in age group