

## *Curriculum vitae*

Sarah Hooper, DVM, MS, PhD

Sarah E. Hooper, DVM, MS, PhD  
Associate Dean for Admissions, Students, and Research  
Associate Professor

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### **Education**

<b><u>Date</u></b>	<b><u>Institution</u></b>	<b><u>Degree</u></b>
2019-2021	University of Missouri, Institute for Data Science and Informatics, Data Science and Analytics: Biohealth Emphasis	MS
2013-2017	University of Missouri, College of Veterinary Medicine, Pathobiology	PhD
2013-2016	University of Missouri, College of Veterinary Medicine, Comparative Medicine	Residency
2009-2013	University of Georgia, College of Veterinary Medicine,	DVM
2006-2010	University of Georgia, College of Agricultural and Environmental Sciences, Avian Biology. Summa Cum Laude	BSA

### **Professional Academic Experience**

2025-present, Associate Dean for Admissions, Students, and Research, Arkansas State University College of Veterinary Medicine, Jonesboro, AR, USA.

2025-present, Associate Professor, Arkansas State University College of Veterinary Medicine, Jonesboro, AR, USA.

2023-2025, Director, Research Center for Veterinary Education, Diversity, and Data Analytics, Ross University School of Veterinary Medicine, Saint Kitts, West Indies.

2024-2025, Associate Professor of Veterinary Physiology, Ross University School of Veterinary Medicine, Saint Kitts, West Indies.

2020-2023, Assistant Professor of Veterinary Physiology, Ross University School of Veterinary Medicine, Saint Kitts, West Indies.

2020-2025, Adjunct Assistant/Associate Professor, Department of Veterinary Pathobiology, University of Missouri College of Veterinary Medicine, Columbia, Missouri, USA.

2018-2020, US Forest Service Northern Research Station Research Fellow/University of Missouri Comparative Medicine Veterinarian, School of Natural Resources/Department of Veterinary Pathobiology, University of Missouri, Columbia, Missouri, USA.

## **Professional Teaching Experience**

### **Veterinary Professional Curriculum**

- VELE 5001 Wildlife Capture and Chemical Immobilization, 2024-2025
  - 15 hours of lecture. Course credit: 1, first semester offered Fall 2024
  - Course Coordinator
- VELE 5002 Wildlife Capture and Chemical Immobilization Field Course, 2024-2025
  - 32 hours of lab. Course credit: 1, first semester offered Fall 2024
  - Course Coordinator
- VMI 5102 Veterinary Professional Foundations 1, 2021-2025
  - 14 hours of lab. Course credit hours: 1, course given 3 times per year
- VMR 5132 Principles of Veterinary Research, 2024-2025
  - 1 hour of lecture. Course credit hours: 1, course given 3 times per year
- VMI 5213 Academic Development Program, 2023-2025
  - 1 hour of lecture. Course credit hours: 1, course given 3 times per year
- VPP 5123 Physiology I, 2023-2025
  - 0-6 hours of lecture. Course credit hours: 4, course given 3 times per year
  - Course Coordinator
- VPP 5223 Physiology II, 2020-2025
  - 59 hours of lecture. Course credit hours: 4, course given 3 times per year
  - Course Coordinator
- V\_PBIO 5995 Foundations in Veterinary Research and Discovery, 2014-2021
  - 2 hours of lecture and/or 12 weeks of research mentoring. Course credit hours: 2
- V\_PBIO 6676 Laboratory Animal Medicine and Management Elective, 2014-2020
  - Clinical rotation, 3-12 weeks. Course credit hours: variable
- V\_PBIO 6010 Laboratory Animal Medicine, 2014-2018
  - 2 hours of lecture. 6 hours of laboratory instruction. Course credit hours: 1

### **Graduate Curriculum**

- VPRP 909 Structural and Foundational Biology, 2020-2025
  - 3 hours of lecture. Course credit hours: 3, course given 3 times per year
- MU AN\_SCI 8085 Elements of Experimental Surgery, 2013-2015
  - 2 hours of lecture. 6 hours of laboratory instruction. Course credit hours: 1

### **Undergraduate Curriculum**

- F\_W 3660 Mammalogy, 2018-2019
  - Laboratory instruction hours 2-4. Course credit hours: 4
- F\_W 4700 Wildlife Research and Management Evaluation Methods, 2019
  - Lecture and laboratory instruction hours 4. Course credit hours: 4
- AN\_SCI 1065 Animal Science laboratory Practicum, 2013-2016
  - 6 hours of laboratory instruction. Course credit hours: 3
- BIOMED 2120 Animal Handling and Physical Restraint, 2013-2016
  - 6 hours of laboratory instruction. Course credit hours: 2

Other Teaching Responsibilities

- Clinical skills labs and workshops for research projects, 2023-2025
- Clinical skills and surgical skills training, Veterinarian for Feral Cat Project, RUSVM Shelter Medicine Club, and RUSVM VIDA, 2020-2025
- University of Missouri College of Veterinary Medicine Veterinary Research Scholars Program Research Mentor, 2014-2025
- University of Missouri College of Veterinary Medicine Advanced Veterinary Academy Instructor, 2014-2016
- College of Veterinary Medicine Dog Days of Summer Instructor, 2014-2016
- University of Missouri Office of Animal Resources Technician Continuing Education Seminar Instructor, 2013-2015

Publications

\* indicates graduate student mentee, \*\* indicates veterinary student mentee, \*\*\* indicates undergraduate student mentee

**Peer-reviewed journal articles (in print or accepted)**

Ronzani, D\*\* and **Hooper, SE**. (2025) Physical activity predictors of cancer in Golden Retrievers: it's about frequency and intensity, not type. *BMC Veterinary. Oncology*. **2**(11). doi: 10.1186/s44356-025-00024-5

Roman, B\*, Gallagher, C, Beierschmitt, A, & **Hooper, S**. (2025). Investigating Stress and Coping Behaviors in African Green Monkeys (*Chlorocebus aethiops sabaeus*) Through Machine Learning and Multivariate Generalized Linear Mixed Models. *Veterinary sciences*, **12**(3), 209. doi: 10.3390/vetsci12030209. PMID: 40266911 PMCID: PMC11946624

Artemiou, E., **Hooper, S**, Dascanio, L., Schmidt, M., & Gilbert, G. (2025). Introducing AI-generated cases (AI-cases) & standardized clients (AI-SCs) in communication training for veterinary students: perceptions and adoption challenges. *Frontiers in Veterinary Science*, **11**, 1504598. PMID: 40066104 PMCID: PMC11892109

**Hooper, SE**, Ragland, N, & Artemiou, E. (2025). Random forest models reveal academic and financial factors outweigh demographics in predicting completion of a year-round veterinary program. *Journal of the American Veterinary Medical Association*, **263**(2), 1-9. doi: 10.2460/javma.24.08.0501 PMID: 39536443

Kulberg, JL\*,\*\*†, **Hooper, S**†, Malik, YS, & Ghosh, S. (2024). Novel Betaherpesviruses in Neotropical Bats on the Caribbean Island of St. Kitts: First Report from Antillean Tree Bats (*Ardops nicholli*) and Evidence for Cross-Species Transmission. *Microorganisms*, **12**(12), 2603. doi: 10.3390/microorganisms12122603. PMID: 39770805 PMCID: PMC11677976 († These authors contributed equally to this work.)

**Hooper, SE** and Amelon SK. (2023) Contact-independent exposure to *Rhodococcus rhodochrous* DAP96253 volatiles does not improve the survival rate of *Myotis lucifugus* (little brown bats) affected by White-nose Syndrome. *PeerJ* **11**:e15782 doi: 10.7717/peerj.15782 PMID: 37868049 PMCID: PMC10590100

- Hooper, SE**, Hecker K, & Artemiou E. (2023) Using Machine Learning in Veterinary Medical Education: An Introduction for Veterinary Medicine Educators. *Veterinary Sciences*, 10(9), 537. doi: 10.3390/vetsci10090537. PMID: 37756059 PMCID: PMC10536867
- Hooper, S**, Habacker H, & Frazier D. (2023). Developing a Transdisciplinary Team Using Online Data Science Training and a Real-World Case Study on the Pandemic, COVID-19. *Transdisciplinary Journal of Engineering & Science*, 14. doi: 10.22545/2023/00224
- Hooper, SE**, Amelon SK, & Lin CH. (2022) Development of an LC-MS/MS Method for Non-Invasive Biomonitoring of Neonicotinoid and Systemic Herbicide Pesticide Residues in Bat Hair. *Toxics*, 10(2), 73. doi: 10.3390/toxics10020073 PMID: 35202259 PMCID: PMC8878529
- Hooper, S** and Amelon S. (2022). Pesticide Exposure Risks to Chiropteran Species and the Impacts on Emerging Zoonotic Diseases. In (Ed.), *Bats - Disease-Prone but Beneficial*. IntechOpen. doi: 10.5772/intechopen.100643
- Hooper, SE**, Weller B, & Amelon SK. (2020) Creation and validation of the R-package countcolors for repeatable, objective quantification of the fluorescence emitted by *Pseudogymnoascus destructans* on the wing membrane of hibernating bats. *Journal of Wildlife Diseases*. 56(4):759-767. doi: 10.7589/2019-09-231. PMID: 32609601.
- Hooper, SE**, Eshelman A\*\*, Cowan AN\*\*\*, Roistacher A\*, Tyler P\*\*, & Amelon SK. (2020) Using deuterium oxide as a non-invasive, non-lethal tool for assessing body composition and water consumption in mammals. *Journal of Visual Experimentation*. (156), e59442, doi:10.3791/59442. PMID: 32150166 PMCID: PMC10228182
- Hooper SE**, Backus RB, & Amelon SK. (2018) Effects of dietary selenium and moisture on the physical activity and thyroid axis of cats. *Journal of Animal Physiology and Nutrition* 102:495-504. doi: 10.1111/jpn.12776 PMID: 28984032 PMCID: PMC5839927
- Sprinkle MC, **Hooper SE**, & Backus RC. (2018) Previously undescribed vitamin D C-3 epimer occurs in substantial amounts in the blood of cats. *Journal of Feline Medicine and Surgery* 20:83-90. doi: 10.1777/1098612X17693523 PMID: 29172936 PMCID: PMC5708158
- Pikula J, Amelon SK, Bandouchova H, Bartonicka T, Berkova H, Brichta J, **Hooper S**, [...], & Martartínková N. (2017) White-nose syndrome pathology grading in Nearctic and Palearctic bats. *PLoS One*, 12(8), e0180435. doi: 10.1371/journal.pone.0180435 PMCID: PMC5540284
- Hooper SE**, Amelon SK, & Womack K. (2017) Bat wing biometrics: using collagen–elastin bundles in bat wings as a unique individual identifier. *Journal of Mammalogy* 98:744-751. doi:10.1093/jmammal/gyx018 PMID: 28767673 PMCID: PMC5901080
- Hooper SE**, Korte SW, Giguere S, Fales WH, Davis JL, & Dixon LW. (2016) Pharmacokinetics of Ceftiofur Crystalline-Free Acid in Clinically Healthy Dogs (*Canis lupus familiaris*). *Journal of the American Association for Laboratory Animal Science* 55:224-229. PMID: 27025816 PMCID: PMC4783643
- Kim S, **Hooper S**, Agca C, & Agca Y. (2016) Post-thaw ATP supplementation enhances cryoprotective effect of iodixanol in rat spermatozoa. *Reproductive Biology and Endocrinology* 14:1-8. doi: 10.1186/s12958-016-0141-5 PMCID: PMC4731941
- Hooper SE** and Amelon SK (2014) Handling and blood collection in the little brown bat (*Myotis lucifugus*) *Lab Animal* 43:197-199 doi:10.1038/labon.543. PMID: 24845004

## *Curriculum vitae*

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Cervantes HM, Bafundo KW, Shim M, **Hooper S**, & Pesti GM. (2011) The influence of virginiamycin on the live and processing performance of Nicholas turkey hens. *Journal of Poultry Science* 2011; 20(3): 2281-2286. doi: 10.3382/japr.2010-00260

### **Peer-reviewed journal articles (in review)**

Washburn E<sup>\*,\*\*</sup>, **Hooper SE**, Scott E, Artemiou E. Determining the Minimum Deliberate Practice Time for Fundoscopy Proficiency on Canine Simulation Models. In-revision.

### **Published Non-peer reviewed journal articles:**

**Hooper, SE**, Washburn, E. H. <sup>\*,\*\*</sup>, Zayas, R. <sup>\*,\*\*</sup>, & Ronzani, D. <sup>\*\*</sup> (2024). Veterinary students leading research in veterinary education, diversity, and data analytics. *Journal of the American Veterinary Medical Association*, 262(1), 142-142.

### **Published Scientific Abstracts**

\* indicates graduate student mentee, \*\* indicates veterinary student mentee, \*\*\* indicates undergraduate student mentee

**Hooper SE**, Weller H, Roistacher AJ<sup>\*</sup>, Amelon SK. Creation and validation of the R-package Countcolor for quantifying the fluorescence emitted by *Pseudogymnoascus destructans*. *Bat Research News*.

Amelon SK, Starbuck CA, **Hooper SE**. Fifteen years of acoustic bat monitoring in the Missouri Ozarks. *Bat Research News*.

**Hooper SE**, Fasig J<sup>\*\*</sup>, Amelon SK. Development of a body condition scoring system validated by DXA and deuterium oxide in big brown bats (*Eptesicus fuscus*). In: Aihartza K, Alberdi A, Garin I, editors. 14<sup>th</sup> European Bat Research Symposium Book of Abstracts. 2017 Aug 1-5. Zarautz, Spain: Hizki Inprimategia. 2017. p.111 ISBN 978-84-697-4575-5

Amelon SK, Drazenovich T, Chacon-Heszele M, Haman K, Turner G, Vanwestrienen J, Perelman M, **Hooper S**, Keel K. Validation of a field-portable, hand-held qPCR system for detecting *Pseudogymnoascus destructans*, the causative agent of white-nose syndrome in bats. In: Aihartza K, Alberdi A, Garin I, editors. 14<sup>th</sup> European Bat Research Symposium Book of Abstracts. 2017 Aug 1-5. Zarautz, Spain: Hizki Inprimategia. 2017. p.37 ISBN 978-84-697-4575-5

**Hooper SE**, Backus R, Amelon SK. (2016) Effects of dietary selenium and moisture on the physical activity and thyroid axis of cats. *Journal of Animal Physiology and Animal Nutrition* 100:1008. doi:10.1111/jpn.12601

**Hooper, SE**, Amelon, S. (2015) Histological characterization of *Pseudogymnoascus destructans* in *Perimyotis subflavus*. *Bat Research News*. 56(4):95.

**Hooper SE**, Mori L<sup>\*\*</sup>, Backus RC. (2014) Effects of bisphenol-A and estradiol ingested with food on plasma concentrations of glucose, insulin, and thyroid-axis hormones in cats. *Journal of Animal Physiology and Animal Nutrition* 98:1188. doi:10.1111/jpn.12269

### **Conference Presentations**

\* indicates graduate student mentee, \*\* indicates veterinary student mentee, \*\*\* indicates undergraduate student mentee

- Vargas Arroyo N\*, Clint R, Myers S, Schmidt M, Dascanio L, Rodriguez-Mori H, Johnson B, Loneragan G, **Hooper S**, Levent G, Artemiou E. Poster presentation. American Society of Animal Science (ASAS)-Canadian Society of Animal Science (CSAS) Annual Meeting. "Survey data eliciting barriers and challenges of farm workers at feedlots and dairies across the Texas Panhandle: Increasing adherence to postmortem procedures," Hollywood, Florida, U.S.A. July 6, 2025.
- Hooper SE**, Dazjah S \*\*. What are you "Bat"sorbing? Using Non-targeted Metabolomics to Screen for Emerging Environmental Pollution Threats to Bats on St. Kitts. 16<sup>th</sup> European Bat Research Symposium, Tarragona (Catalonia-Spain), Spain. September 2-6, 2024.
- Ciaramella C\*\*, Kehl M, Fernandes de Azevedo A., Artemiou E., **Hooper S**. Veterinary Summer Scholars Symposium. "Neurophobia Unmasked: Using LEGO and cognitive style to refine veterinary students' lesion localization skills," St. Paul, Minnesota. U.S.A. August 8, 2024.
- Ronazoni D\*\*, **Hooper S**. Unraveling Correlations Between Exercise and Neoplastic Disease in Golden Retrievers Using Big Data Analysis. American College of Veterinary Internal Medicine (ACVIM) Forum 2024, Minneapolis, MN. June 6-8, 2024.
- Childress C\*, **Hooper S**, Cobb A, Artemiou E. Phi Zeta Amarillo Research Symposium. "The role of dietary factors in canine diarrhea: Big data analysis," Amarillo, Texas, U.S.A. (April 19, 2024).
- Zayes R\*,\*\*, **Hooper SE**, Greenhill L, Cavanaugh SM, Navarrete Talloni MJ. Studying Abroad and Social Identity: The Impact of Cultural Immersion on Openness to Diversity, American Association of Veterinary Medical Colleges (AAVMC) Catalyze 2024 Conference, Panel, Washington DC. April 11-13, 2024.
- Diniz P, **Hooper SE**, Schmidt M, Watson J. Friend or Foe? Large Language Models in Veterinary Education Assessment, American Association of Veterinary Medical Colleges (AAVMC) Catalyze 2024 Conference, Panel, Washington DC. April 11-13, 2024.
- Hooper SE**, Washburn E\*,\*\*, Artemiou E. Deliberate practice research studies to inform clinical skills laboratories curricula. Veterinary Educators Symposium, Amarillo, Texas. October 27-28, 2023.
- Hooper SE**, Artemiou E. The Transparency, reproducibility, and replicability of peer-reviewed, analyses of veterinary medical education simulator studies. Vet Ed 2023 Conference, Edinburgh, Scotland. July 6-7, 2023.
- Hooper SE**, Ragland NH, Artemiou E. The Use of Random Forest Machine Learning Models for Student Recruitment and Retention: Predicting Academic Success and Identification of At-Risk Students for Targeted Interventions. American Association of Veterinary Medical Colleges (AAVMC) Catalyze 2023 Conference, Washington, DC, March 9-11, 2023.
- Le A\*\*, Graham M\*\*, Artemiou E, **Hooper S**. Understanding the interactions of pets and their owners with Saint Kitts and Nevis Wildlife. 2021 National Veterinary Student Symposium. Virtual. August 2021.
- Hooper SE**, Fasig J\*\*, Amelon SK, Development of a body condition scoring system validated by DXA and deuterium oxide in big brown bats (*Eptesicus fuscus*). 14th European Bat Research Conference, August 1-5, 2017.

**Hooper SE**, Backus R, Amelon, SK, Effects of dietary selenium and moisture on the physical activity and thyroid axis of cats. 20<sup>th</sup> Congress of the European Society of Veterinary and Comparative Nutrition, Berlin, Germany, September 15-17, 2016.

**Hooper S**, and Amelon, S. *Pseudogymnoascus destructans* disease progression in captive and wild *Perimyotis subflavus*. 17<sup>th</sup> International Bat Research Conference. Durban, South Africa. July 31-August 5, 2016.

**Hooper SE**, Backus R, Amelon SK, Effects of dietary selenium and moisture on the physical activity and thyroid axis of cats. 2016 American Academy of Veterinary Nutrition Research Symposium, Denver, Colorado, June 8, 2016.

Amelon SK, Cornelison CT, **Hooper SE**, Linder D. *In vivo* evaluation of fungistatic volatile compounds from native soil bacterial *Rhodococcus rhodochrous* DAP96253 for inhibition of *Pseudogymnoascus destructans* in bats. 2014 White-Nose Syndrome Workshop, Saint Louis, Missouri, Sept 8-12, 2014.

**Hooper S.**, Mori L. \*\*, Backus R. Effects of bisphenol-A and estradiol ingested with food on plasma concentrations of glucose, insulin, and thyroid-axis hormones in cats. 2014 American Academy of Veterinary Nutrition Research Symposium, Nashville, Tennessee, June 3, 2014.

**Hooper SE**, Hung CC, Altier, C. Antisense mechanisms of gene regulation in *Salmonella*. The University of Georgia the Science of Veterinary Medicine Symposium, Athens, Georgia. October 14, 2010.

### **Poster Presentations**

\* indicates graduate student mentee, \*\* indicates veterinary student mentee or DVM-MS candidate, \*\*\* indicates undergraduate student mentee

**Hooper SE**, Amelon S. Using LC-QTOF-MS fecal metabolomics to identify activated functional biological pathways in the guano of non-flying big brown bats (*Eptesicus fuscus*), 16<sup>th</sup> European Bat Research Symposium, Tarragona (Catalonia-Spain), Spain. September 2-6, 2024.

Ciaramella C\*\*, Kehl M, Azevedo AF, Artemiou E, **Hooper S**. Neurophobia Unmasked: Using LEGO™ and Cognitive Style to Refine Veterinary Students' Lesion Localization Skills. National Veterinary Student Scholars Symposium. Minneapolis, MN, August 8-10, 2024.

Samuels D\*\*, Ragland N, **Hooper S**. You Are What You 'Bat'sorbing, Using Non-target Metabolomics to Identify Emerging Environmental Pollution Threats to Bats. National Veterinary Student Scholars Symposium. San Jose, Puerto Rico. August 3-5, 2023.

Mancuso D\*, **Hooper S**, Ghosh S. Batting for Viruses in Bats. RUSVM One Health Research Day. West Farm, St. Kitts. November 3, 2022.

**Hooper SE**, Weller H, Roistacher AJ\*, Amelon, SK. Creation and Validation of the R-package countcolor for Quantifying the Fluorescence Emitted by *Pseudogymnoascus destructans*. Annual Symposium of the North American Society of Bat Research (NASBR) Puerto Vallarta, Mexico. October 24-28, 2018.

Eshelman AN\*\*, **Hooper SE**, Amelon SK. Evaluating the use of deuterium oxide to determine body composition in the big brown bat, *Eptesicus fuscus*. College Station, Texas. August 2-4, 2018.

Paneitz T\*\*, **Hooper SE**, Amelon SK. Establishing healthy baseline blood chemistry values in native Missouri bat species. National Veterinary Scholars Symposium. College Station, Texas. August 2-4, 2018.

Sprinkle MC, **Hooper SE**, Backus RC. Previously undescribed vitamin D C-3 epimer occurs in substantial amounts in the blood of cats. Waltham International Nutritional Sciences Symposium. Chicago, Illinois. October 18-21, 2016.

**Hooper SE**, Amelon SK. Histological Characterization of *Pseudogymnoascus destructans* in *Perimyotis subflavus*. 45<sup>th</sup> Annual Symposium of the North American Society for Bat Research, Monterey, California. October 28-31, 2015.

**Hooper SE**, Backus R. Validation of human thyroxine (T4) and triiodothyronine (T3) radioimmunoassay (RIA) kits for use with feline serum with a concurrent survey for bisphenol-A (BPA) serum concentrations. University of Missouri 2015 Phi Zeta Research Day, Columbia, Missouri, May 8, 2015.

**Hooper SE**, Korte SW, Giguère S, Dixon LW. Pharmacokinetics of ceftiofur crystalline-free acid (CCFA) sterile solution in clinically healthy dogs (*Canis lupus familiaris*). 2014 AALAS National Meeting, San Antonio, Texas, October 19-23, 2014.

Cooper M<sup>\*\*</sup>, **Hooper S**, Amelon S, Wiedmeyer C. Hematologic and Electrolyte Changes in Little Brown Bats Treated for White Nose Syndrome. Meril-NIH Veterinary Scholars Symposium, Ithaca, New York, July 31-August 3, 2014.

**Hooper SE**, Mori L. <sup>\*\*</sup>, Backus R. Effects of bisphenol-A and estradiol ingested with food on plasma concentrations of glucose, insulin, and thyroid-axis hormones in cats. Life Sciences Week University of Missouri, Columbia, Missouri, April 14-18, 2014.

**Hooper, SE**, Kim S, Agca Y. Effects of Iodixanol on Epididymidal Spermatazoa from Transgenic Rats during the Cryopreservation Process. Meril-NIH Veterinary Scholars Symposium, Orlando, Florida, August 4-7, 2011.

#### **Data Repositories:**

##### **GitHub with DOIs generated:**

(Note: Digital object identifier is registered under my GitHub Username MicroBatVet)

MicroBatVet, & artemioue. (2024). MicroBatVet/AI\_VeterinaryCommunications: Release for DOI generation (v1.0.5). Zenodo. <https://doi.org/10.5281/zenodo.14267432>

MicroBatVet. (2024). RUSVMCenter4/Random-Forest-Machine-Learning-Models-for-Veterinary-Student-Recruitment-and-Retention: Release for Zenodo (version.1.0.1). Zenodo. <https://doi.org/10.5281/zenodo.14051066>

MicroBatVet. (2024). MicroBatVet/DeliberatePractice\_Fundoscopy: Release for Zenodo (v1.0.1). Zenodo. <https://doi.org/10.5281/zenodo.12097345>

MicroBatVet. (2024). MicroBatVet/AGMbehavior\_biochem: Release for Zenodo (v1.0.1). Zenodo. <https://doi.org/10.5281/zenodo.12007831>

MicroBatVet. (2023). MicroBatVet/RRDAP\_WNSFieldTrial: v1.1 release (v1.1). Zenodo. <https://doi.org/10.5281/zenodo.8084459>.



MicroBatVet. (2023). RUSVMCenter4/Veterinary\_Education\_ML\_Tutorial: Vet Ed ML Primer v1.1 (v1.1). Zenodo. <https://doi.org/10.5281/zenodo.8247623>

#### **Mendeley Data:**

**Hooper, S**, Habacker, H, Frazier, D (2020), “Transdisciplinary Team Building Using a Real-World Case Study on the Pandemic COVID-19”, Mendeley Data, V1, doi: 10.17632/sgngmzxzbr.1

#### **Invited Presentations**

**Hooper SE**. Machine learning models to predict student success and targeted interventions. Association of Veterinary Informatics (AVI) Talbot Symposium. Race CE 1 hour. August 18, 2023.

**Hooper SE**. Balancing Research and Conservation, Institutional Animal Care and Use Committee and Laboratory Animal Veterinarians. US Fish and Wildlife Service White-nose Syndrome Symposium. Disease Management Working Group. June 8, 2016.

Amelon SK, **Hooper SE**, Cornelison CT, Linder DL. USFS Integrated Disease Management Strategies for White-nose Syndrome. Association for Fish and Wildlife Agencies Webinar. April 27, 2016.

**Hooper SE**, Amelon SK, Cornelison CT. White-nose Syndrome (WNS): an unprecedented disease impacting bat ecology. iGEM White Nose Syndrome Symposium Missouri University of Science and Technology, September 15, 2015.

#### **Research Funding**

\*\*indicates veterinary student mentee or DVM-MS candidate

#### **External Grants**

Artemiou E (PD), **Hooper SE** (Co-PD), Dascanio L (Co-PD), Johnson B (Co-PD), Levent G (Co-PD), Myers S (Co-PD), Rodriguez-Mori H (Co-PD), Roof C (Co-PD), Schmidt M (Co-PD), Loneragan G (Co-PD). Targeted Communication & Digital Photography Educational Training for Farm Animal Veterinarians and Students. USDA Education, Extension and Training (EET) grant. \$250,000 (direct). 2024-2027. (Contribution to grant: Grantsmanship 40% of proposal including research questions, experimental design, and statistical analysis. Appendixes 100% which included necropsy standard operating procedure (SOP), necropsy checklist, and equipment/facilities.)

Ciaramella, C (Student PI) \*\*, **Hooper SE** (Mentor PI). Lego Tigers: Can They Help Strengthen Veterinary Education by Reinforcing Students’ Competence?”. BI Veterinary Student Scholars Program. \$6,500 (direct). 2024. (Contribution to grant: Mentor letter, training plan, IRB protocol, grant writing guidance to student PI).

**Hooper SE** (PI), Artemiou E (Co-PI). Understanding how social determinants impact Golden Retriever owner’s choice in feeding practices and exercise and how this impacts the risk of the development of neoplastic diseases. Morris Animal Foundation. Golden Retriever Lifetime Study Data. 2023-2026. (Contribution to grant: Grantsmanship 90% of all sections of proposal).

Artemiou E (PI), **Hooper SE** (Co-PI), Arlene Garcia-Marquez (Co-PI). Social Determinants of Health (SDH), Human Animal Bond (HAB), and their impact on Golden Retriever owner’s choices in nutrition, exercise, lifestyle, and routine care: A model using Machine Learning for assessing Social

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Determinants of Animal Health (SDAH). Texas Tech University Health Sciences Grant Program. \$10,000 (direct). 2024. (Contribution to grant: Grantsmanship 60% of all sections of proposal).

Ronazni D (Student PI) \*\*, **Hooper SE** (Mentor PI). The use of Veterinary Big Data to draw correlation between physical exercise and neoplasia in the golden retriever. \$5,500 (direct). Morris Animal Foundation. 2023. (Contribution to grant: Mentor letter, training plan, IRB protocol, and grant writing guidance to student PI).

Washburn E (Student PI) \*\*, **Hooper SE** (Mentor PI). Identifying minimum deliberate practice needed to identify normal and abnormal structures on the canine funduscopy teaching model. Morris Animal Foundation. \$5,500 (direct). 2023. (Contribution to grant: Mentor letter, training plan, IRB protocol, and grant writing guidance to student PI)

Samuels D (Student PI) \*\*, **Hooper SE** (Mentor PI). You Are What You 'Bat'sorb, Using non-targeted Metabolomics to Identify Emerging Environmental Pollution Threats to Bats. Morris Animal Foundation. \$5,000 (direct). 2022. (Contribution to grant: Mentor letter, IACUC protocol, and grant writing guidance to student PI)

Samuels D (Student PI) \*\*, **Hooper SE** (Mentor PI). Using non-targeted Metabolomics to Identify Emerging Environmental Pollution Threats to Bats. Foundation for Food and Agriculture Research (FFAR) and the American Association of Veterinary Medical Colleges (AAVMC) \$10,000 (direct). 2022. (Contribution to grant: Mentor letter and grant writing guidance to student PI)

Bolanos A (Student PI) \*\*, Bergfelt D (Mentor PI), Hooper SE (Mentor PI). Persistent Organic Pollutants (POPs) in Blubber of Aquarium-Based Bottlenose Dolphins (*Tursiops truncatus*). Morris Animal Foundation. \$5,000 (direct). 2021. (Contribution to grant: Mentor letter, IACUC protocol, and grant writing guidance to student PI)

Buchanan, M (PI – Missouri Department of Conservation), Amelon, SK (PI–), **Hooper SE (PI–University of Missouri)**. Integrating bat physiological responses and population status into assessments of forest management activities and landscape health. \$688,545 (direct); Missouri Department of Conservation. 2018-2025. (Contribution, Grantsmanship 50% for all proposal sections, SH: 100% salary support 2018-2020)

**Hooper SE** (PI – University of Missouri), Amelon SK (PI – USFS), Interrupting the disease cycle of *Psuedogymnoascus destructans*: Leveraging knowledge of disease and treatment dynamics to design integrated disease management (IDM) strategies. US Fish and Wildlife Service. \$129,878 (direct); 2018-2020. (Contribution to grant: Grantsmanship 50% for all proposal sections)

**Hooper SE** (Co-PI), Amelon SK (Co-PI), Integrated Disease Management for White-nose Syndrome. USDA US Forest Service. \$325,000 (direct); 2016-2020. (Contribution to grant: Grantsmanship 50% for all proposal sections)

Sprinkle M (PI), Backus RB (co-I), **Hooper SE** (co-I), Greenlief M (co-I), Occurrence of the C-3 Epimers of 25-Hydroxyvitamin D3 and D2 in Feline Serum. Nestle Purina. \$14,930 (direct); 2016-2017.

**Hooper SE** (PI), Backus RB (co-I), Selenium's effect on thyroid hormones and activity level. American Academy of Veterinary Nutrition/Waltham Research Grant. \$10,000 (direct); 2015-2016.

**Hooper SE** (PI), Backus R (co-I), Validation of human thyroxine and triiodothyronine radioimmunoassays for use with feline serum. University of Missouri, Phi Zeta Research Grant. \$1,000 (direct); 2014-2015. (Contribution to grant: Grantsmanship 90% for all proposal sections)

Amelon SK (PI), Cornelison CT (co-I), **Hooper SE** (co-I), Gabriel KT (co-I), Crow S (co-I). Determination of optimal regime for treatment of White-nose Syndrome (WNS) in bats using multiply induced *Rhodococcus rhodochrous* DAP 96253 cells for *ex situ* and *in situ* application as a natural inhibitory agent towards *Psuedogymnoascus destructans*. Bat Conservation International Grant, \$48,000 (direct); 2014-2016. (Contribution to grant: Grantsmanship 30% for all proposal sections)

**Hooper SE** (PI), Korte SW (co-I), Giguère S (co-I), Dixon, LW (co-I) Pharmacokinetics of ceftiofur crystalline-free acid (CCFA) sterile solution in clinically healthy dogs (*Canis lupus familiaris*). University of Missouri, Phi Zeta Research Grant. \$750 (direct); 2013-2014. (Contribution to grant: Grantsmanship 90% for all proposal sections)

**University Intramural Grants:**

**Hooper SE (PI)**, Yvorchuck, K (Co-PI), Artemiou E (Co-PI). Incorporating Immersive virtual reality (IVR) into the DVM program: Evaluation of Student's interaction with the VR horse and environment. \$4,081.00. 2023-2024. \$15,000. 2024-2025.

Kehl M (PI), Kortze S (Co-PI), **Hooper SE** (Co-PI). Can Conscientiousness Predict Final Gross Anatomy 1 Grade? \$1,000. 2024-2025.

**Hooper S** (PI). Can Large Language Models help students engage in active learning? \$1,600.

**Hooper SE** (PI), Artemiou E (Co-PI). Identifying minimum deliberate practice needed to identify normal and abnormal structures on the canine funduscopy teaching model. \$3,160.00. 2023-2024.

**Hooper SE** (PI), Artemiou E (Co-PI). Understanding how social determinants impact Golden Retriever owner's choice in feeding practices and how this impacts the risk of the development of neoplastic diseases. = \$3,600. 2023-2024. \$800, 2024-2025.

**Hooper SE** (PI), Kehl M (Co-PI), Bower J (Co-PI), Artemiou E (Co-PI). Evaluating the Use of Lego Tigers for Teaching and Assessing Localization of Neurology Lesions. \$3,200. 2023-2024. \$800, 2024-2025.

Ghosh S (PI), **Hooper SE** (Co-PI), Bolfa P (Co-PI), Navarrete Talloni MJ (Co-PI). Investigating the prevalence, genetic diversity/evolution, and cross-species transmission of herpesviruses in bats, the small Indian mongoose, and rodents on the Caribbean Island of St. Kitts. \$18,771. 2024-2025.

Ragland N (PI), **Hooper SE** (Co-PI), Artemiou E. Evaluating the Impact of Social Determinants on Academic Success of Underrepresented Minority (URM) Veterinary Students. RUSVM Intramural \$1,200. 2022-2023.

Fenton H (PI), Stewart K (Co-PI), Talloni MJ (Co-PI), Gallagher C (Co-PI), Freeman M (Co-PI), Becker A (Co-PI), **Hooper SE** (Co-PI), Bouillon J (Co-PI). Capacity Building for a Marine Mammal Stranding Network in St. Kitts. \$3,500 2022-2023.

Ghosh S (PI), **Hooper SE** (Co-PI), Bolfa P (Co-PI), Navarrete Talloni MJ (Co-PI), Becker AMJ (Co-PI). Detection and molecular characterization of viruses in wildlife on the Caribbean islands of St. Kitts and Nevis: Peeping into a potential Pandora's box? \$12,679. 2022-2023.

**Hooper SE** (PI), Stewart K (Co-PI), Dennis M (Co-PI). Evaluating high-resolution mass spectrometry methods as a potential tool for assessing organic contaminants in unhatched Leatherback sea turtle eggs. \$13,544.27. 2021-2022.

### *Curriculum vitae*

Sarah Hooper, DVM, MS, PhD

**Hooper SE** (PI), Knobel (Co-PI). Merging Conservation Efforts with Public Health: Assessing the Biodiversity, Ecological Services, and Seroprevalence of Rabies Virus Neutralizing Antibodies in Bats on Saint Kitts. \$3,095. 2021-2022.

Bergfelt D (PI), **Hooper S** (Co-PI). Persistent organic pollutants (POP) in blubber of wild cetaceans in the Eastern Caribbean. \$24,763. 2020-2021.

**Hooper SE** (PI), Knobel (Co-PI). Merging Conservation Efforts with Public Health: Assessing the Biodiversity, Ecological Services, and Seroprevalence of Rabies Virus Neutralizing Antibodies in Bats on Saint Kitts. \$20,000

Backus RB (PI), Hooper (Co-PI). The potential role of taurine in the development of hyperthyroidism. \$17,933. 2015-2016.

### **Graduate Students**

NAME	DEGREE	THESIS TITLE/SUBJECT OF STUDY	AFFILIATION	GRADUATE PROGRAM STATUS	ROLE
Emily Hunt	DVM-MSc	Impact of the Feral Cat Project on the St. Kitts Feral Cat Population	Ross University School of Veterinary Medicine	2023-present In-progress	Lead-Supervisor and Statistical Supervisor
Jessica Kulburg	DVM-MSc	Detection and Molecular Characterization of Viruses in Wildlife, Livestock and Companion Animals in The Caribbean Islands and Central America	Ross University School of Veterinary Medicine	2024-present In-progress	Co-Supervisor
Carla Joseph	DVM-MSc	Effect of Autologous Platelet-Rich Plasma on the Endometrial Inflammatory Response and Fertility of Jennies Inseminated with Donkey Jack Cryopreserved Semen	Ross University School of Veterinary Medicine	2023-present Thesis submitted for external review	Co-Supervisor
Elsie Washburn	DVM-MSc	Determining the Minimum Deliberate Practice Time for Fundoscopy Proficiency on Canine Simulation Models	Ross University School of Veterinary Medicine	2023-2024 Graduated	Lead-Supervisor and Statistical Supervisor
Rebecca Zayas	DVM-MSc	Studying Abroad and Social Identity: The Impact of Cultural Immersion on Openness to Diversity	Ross University School of Veterinary Medicine	2023-2024 Degree Awarded with honors	Chair. Changed to Co-Supervisor and Statistical Supervisor.

## Curriculum vitae

Sarah Hooper, DVM, MS, PhD

Diana Mancuso	DVM-MSc	Molecular characterization of Viruses in Livestock and Wildlife in the Caribbean Islands and Central America	Ross University School of Veterinary Medicine	2022-2024 Degree Awarded with honors	Co-Supervisor
Annie Lee	DVM-MPH	Understanding the Interactions of Pets and Their Owners with St. Kitts and Nevis Wildlife	University of Missouri College of Veterinary Medicine	2020-2023 Graduated	Lead-Supervisor for Capstone Project
Brittany Roman	MSc	Enriching Well-Being: Exploring Complexities Between Enrichment Interventions and the Stress Response of African Green Monkeys ( <i>Chlorocebus Sabaeus</i> )	Ross University School of Veterinary Medicine	2021-2024 Degree Awarded	Joined as Statistical Supervisor and Co-Supervisor in 2023
Christopher Childress	MS	Dietary Supplements Linked to Diarrhea in Golden Retrievers	Texas Tech University School of Veterinary Medicine	2024-2025 Graduated	Co-Supervisor and Statistical Supervisor
Stephanie Jimenez Rivera	MSc	Evaluating Toxicological Health of Antillean Manatees in Puerto Rico: Insights for Conservation and Ecosystem Health	Ross University School of Veterinary Medicine	2024-2025	Chair until departure from RUSVM
Katelyn White	MSc	The Role of Registered Veterinary Technicians in Veterinary Education	Ross University School of Veterinary Medicine	2024-2025	Chair until departure from RUSVM
Carla Rivera Perez	PhD	Topics on manatee conservation medicine: Veterinary pathology and parasitology	Ross University School of Veterinary Medicine	2022-2025	Chair until departure from RUSVM

**Workshops/Training Attended**

<b>COURSE TITLE</b>	<b>ASSOCIATED UNIVERSITY</b>	<b>TOPICS</b>	<b>DATES</b>
<b>Molecular Approaches, Methods and Techniques In Animal Ecology</b>	Udako Euskal Unibertsitatea (UEU)	Population genomics, DNA metabarcoding, metagenomics	July 28-30, 2017
<b>University of Missouri Metabolomics Workshop</b>	University of Missouri	Sample prep, data acquisition, instrumental analyses via GCMS and LCMS, and data processing	May 15-19, 2017
<b>Acoustic Survey Methods for Bats</b>	None	Acoustic inventory methods, data management workflows, analysis using SonoBat and Kaleidoscope, manual call identification	Jan. 16-21, 2018
<b>Sable Systems Respirometry Training</b>	None	Private training session on techniques for measuring metabolic rates, (real-time O <sub>2</sub> consumption, CO <sub>2</sub> production, water vapor loss).	Aug 20-23, 2018
<b>San Diego Zoo Wildlife Alliance Academy Safe Capture Field Anesthesia Course</b>	None	Chemical Immobilization and Anesthesia of Domestic and Wildlife Species	July 20-22, 2021
<b>Center for Wildlife Studies Occupancy Modeling Workshop</b>	Varies	Single-season models, multi-season models, PRESENCE, RPresence	Aug16-30, 2021
<b>Center for Wildlife Studies Bayesian Statistics Course</b>	Varies	Bayes' Rule and posterior distribution, Markov chain Monte Carlo, Bayesian normal and generalized linear models, Bayesian hierarchical models, model checking and comparison	Sept 6-30, 2022

## Curriculum vitae

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<b>Amee Essential Skills In Medical Education</b>	None	Covers the competencies required of medical and healthcare professions teachers in their role as information provider, facilitator of learning, role model, curriculum planner, and assessor.	Sept 9-Nov 27, 2022
<b>Apple Learning Academy</b>	None	Intensive professional development focusing on using Apple technology/tools for innovative learning and teaching	July 22-26, 2024

### **Professional Licensure:**

<u>State</u>	<u>I.D. Number</u>	<u>Dates</u>
Georgia (DVM)	VET#####	2013-2018
Missouri (DVM)	2013#####	2013-present

### **Federal Accreditation:**

<u>Agency</u>	<u>National Accreditation Number</u>	<u>Dates</u>
USDA-APHIS (Category II)	#####	2013-present

### **Certifications:**

<u>Name of certification</u>	<u>Organization Granting Certification</u>	<u>Dates</u>
Emotional CPR (eCPR)	National Empowerment Center	2022
Apple Teacher Certification	Apple Inc.	2020

### **Professional Activities and Associations:**

Association of Veterinary Informatics (AVI), Member since 2022  
North American Society for Bat Research (NASBR), 2015-2020  
American Academy of Veterinary Nutrition (AAVN), 2014-2019  
American Association of Laboratory Animal Science (AALAS), Member 2013-2017  
American Society of Laboratory Animal Practitioners (ASLAP), Member 2011-2017  
The Wildlife Society, Member 2018-2020

## *Curriculum vitae*

Sarah Hooper, DVM, MS, PhD

### **Service Activities:**

#### Advisory Boards/Working Groups

Morris Animal Foundation's Animal Health Advisory Council, member since 2024

Morris Animal Foundation's Veterinary Student Scholars Scientific Advisory Board (SAB), member since 2024

Association of Veterinary Informatics (AVI) Interoperability Communications Working Group, member since 2023

Adtalem LMS and LCMS Governance and Strategy Council, Subtrack The Future of Virtual Simulations, member 2023-2024

White Nose Syndrome Disease Management Working Group, 2018-2024

White Nose Syndrome Conservation and Recovery Working Group, 2018-2024

United States Forest Service Research and Development White Nose Syndrome Investigation Team, Member 2013-2020

#### National Organizations

AAVMC Academic Affairs Committee, member since 2025

AAVMC Research Committee, member since 2025

#### University

RUSVM Graduate Research Council (GRC) Center Director Member, 2023-2025

RUSVM Admissions Committee, Member 2023-2025

RUSVM Institutional Review Board, Member 2023-2025

RUSVM Education Development Committee (EDC), Founding member 2023-2025

RUSVM Academic Semester Coordinator, 2021-2025

RUSVM Institutional Animal Care and Use Committee (IACUC), Member 2020-2024

#### Professional Publications

Review Editor, Veterinary Humanities and Social Sciences

Ad Hoc Reviewer, Acta Chiroptera

Ad Hoc Reviewer, Frontiers Veterinary Science

Ad Hoc Reviewer, Journal of Wildlife Diseases

Ad Hoc Reviewer, Journal of American Association for Laboratory Animal Science

Ad Hoc Reviewer, Drug Design, Development and Therapy

Ad Hoc Reviewer, BMC Veterinary Research