

## Brant A. Schumaker

Division of Kinesiology and Health  
University of Wyoming  
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Laramie, WY 82071

### Curriculum Vitae

#### EDUCATION

Ph.D., Epidemiology, University of California, Davis. December, 2010.  
Dissertation: The Epidemiology of Brucellosis in Yellowstone National Park.  
Advisor: Dr. Tim Carpenter.

Master of Preventive Veterinary Medicine, University of California, Davis, June 2006.  
Thesis: Evaluation of the Western Immunoblot for Use in Diagnosing *Brucella abortus* Infections in Elk.  
Advisor: Dr. Michael Ziccardi.

Doctor of Veterinary Medicine, University of California, Davis, June 2005.  
Wyoming State Veterinary License #1475  
California State Veterinary License #15888  
USDA accreditation #061281

Bachelor of Science, Biological Sciences, University of California, Davis, graduated with honors, June 2001.  
Minor: Avian Science

#### PROFESSIONAL LEADERSHIP and ACADEMIC EXPERIENCE

##### Assistant Dean for Foundations

July 2021-Dec 2023

University of Washington School of Medicine, Seattle, Washington

- Provide leadership to Wyoming site for classroom phase of University of Washington School of Medicine (UWSOM) Curriculum at the University of Wyoming (Laramie, WY)
- Recruitment and retention of an increasingly diverse student body with 100% matriculation of students
- Cumulative >60% return of WWAMI graduates to medical practice in Wyoming
- 80% retention of Wyoming WWAMI physicians after their return to the state
- Greater than 8-year length of practice in Wyoming (only 3 required by educational contract)
- Supervise two full-time faculty, three full-time staff, and eleven part-time faculty, as well as over 100 affiliate faculty and guest lecturers
- Fiscal responsibility: manage over \$9.7M annual budget and foundation account with over \$13M
- Lead strategic planning and visioning for Wyoming WWAMI leading to transformation of workplace culture
- Lead hiring efforts for diverse team of faculty and staff
- Lead outreach to state clinical teaching sites
- Lead marketing efforts to promote WWAMI as “Wyoming’s medical school”
- Improved student support services including fee coverage and facilities during board exam study period and celebrations for residency match
- Serve as ex officio member of UWSOM governance committees (curriculum, foundations, student progress, deans council)

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- Serve on administrative council for the College of Health Sciences
- Provide administrative support for critical functions of WWAMI program, including admissions, orientation, immersion, student support/affairs, academic support, summer experiences in rural medicine, research, and global health
- Lead Wyoming WWAMI marketing and development efforts

**Serology Section Head, Associate Professor**

**2015-2021**

Wyoming State Veterinary Laboratory, University of Wyoming, Laramie, Wyoming

- Supervise three full-time staff members and 4-8 undergraduate student workers
- Coordinate cases in the diagnostic serology section which runs over 100,000 tests annually
- Manage over \$550,000 in cooperative agreement funding
- Fiscal analysis of test pricing and updated fee book
- Case coordination for *Brucella* reactor animals, processing a majority of them on the necropsy floor under BSL3 personal protective equipment.
- Maintain the select agent inventory at WSVL for *Brucella spp.*
- Provide summary diagnostic data and diagnostic test validation support

**ACADEMIC/PROFESSIONAL EMPLOYMENT**

**Professor, 2022-Present**

Division of Kinesiology and Health, University of Wyoming, Laramie, Wyoming

Research foci: Public health interventions; Disease management; Diagnostic test development/validation; Transmission dynamics and risk assessment; Outbreak investigations

Job Description: 50% administrative, 25% teaching, 20% research, 5% service and professional development

**Clinical Associate Professor, 2021-Present**

Department of Comparative Medicine, University of Washington, Seattle, Washington

**Associate Professor, 2021-2022**

Division of Kinesiology and Health Promotion, University of Wyoming, Laramie, Wyoming

**Associate Professor, Veterinary Epidemiologist, 2016-2021**

Department of Veterinary Science, Wyoming State Veterinary Laboratory, University of Wyoming, Laramie, Wyoming

Job Description: 50% diagnostic service, 25% teaching, 20% research, 2.5% university service, 2.5% advising

**Assistant Professor, Veterinary Epidemiologist, 2010-2016**

Department of Veterinary Science, Wyoming State Veterinary Laboratory, University of Wyoming, Laramie, Wyoming

**Graduate Student Researcher, 2006-2010**

Department of Medicine and Epidemiology, School of Veterinary Medicine, University of California, Davis

**Veterinary Graduate Academic Fellow, 2006-2008**

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Department of Medicine and Epidemiology, School of Veterinary Medicine, University of California, Davis

**Relief Veterinarian, 2005-2009**

Various practices, Sacramento, California

**AWARDS & HONORS**

Fulbright Specialist, Roster Tenure 2021-2025  
Academic Affairs Meritorious Service Award for work on the COVID-19 pandemic, 2021  
Supervisor of the Year Nominee, UW Staff Senate, 2020  
Outstanding Advisor Award, UW Mortar Board, 2019  
Gamma Sigma Delta Agriculture Honor Society (Inducted 2014)  
Nominee, UW College of Agriculture and Natural Resources Outstanding Advisor Award, 2012  
Nominee, UW John P. Ellbogen Meritorious Classroom Teaching Award, 2011  
Awardee, Veterinary Medical Loan Repayment Program  
Finalist, Science & Technology Policy Fellowship, American Association for the Advancement of Science, 2010-2011  
U.S. Department of Homeland Security Career Development Fellow, Center for Foreign Animal and Zoonotic Disease Defense, 2009-2010  
Outstanding Graduate Student Teaching Award, UC Davis, May, 2008  
Samson Fellowship (2005)  
Auxiliary to the California Veterinary Medical Association Grant (2004/05)  
Theodora Peigh dual-degree scholar (2004)  
Regent scholar (veterinary school and undergraduate)  
Phi Beta Kappa National Honor Society  
Phi Kappa Phi National Honor Society  
Golden Key National Honor Society  
Eagle Scout

**PUBLICATIONS**

**PEER-REVIEWED PUBLICATIONS**

1. Clifford, D.L., **B.A. SCHUMAKER**, T.R. Stephenson, V.C. Bleich, M.L. Cahn, B.J. Gonzales, W.M. Boyce, and J.A.K. Mazet. 2009. Assessing disease risk at the wildlife-livestock interface: a study of Sierra Nevada bighorn sheep. *Biological Conservation* 142: 2559-2568. <https://doi.org/10.1016/j.biocon.2009.06.001>

Note: *This was the first quantitative risk assessment of the risks of pathogen transmission between domestic and bighorn sheep.*

Role: Directed risk model and analysis design and implementation.

2. **SCHUMAKER, B.A.**, J.A.K. Mazet, B.J. Gonzales, P.H. Elzer, S.K. Hietala, and M.H. Ziccardi. 2010. Evaluation of the western immunoblot as a detection method for *Brucella abortus* exposure in elk. *Journal of Wildlife Diseases* 46 (1): 87-94. <https://doi.org/10.7589/0090-3558-46.1.87>  
Role: Directly from Master's thesis.
3. **SCHUMAKER, B.A.**, B.A. Corso, J.C. Rhyan, L.M. Philo, M.D. Salman, and I.A. Gardner. 2010. Evaluation of the fluorescence polarization assay for detection of *Brucella abortus* antibodies in bison in a natural setting. *Comparative Immunology, Microbiology & Infectious Diseases* 33 (6): e119-e125. <https://doi.org/10.1016/j.cimid.2010.07.001>

Note: *A Bayesian analysis of brucellosis testing in a free-ranging bison population.*

Role: Directly from Dissertation work.

4. **SCHUMAKER, B.A.**, D.E. Peck, and M.E. Kauffman. 2012. Brucellosis in the greater Yellowstone area: Disease management at the wildlife-livestock interface. *Human Wildlife Interactions* 6 (1): 48-63. <https://www.jstor.org/stable/24874076>  
Note: *A review paper discussing the epidemiology and economic issues of brucellosis management in the greater Yellowstone area.*
5. Chapinal, N., B.T. Elkin, D.O. Joly, **B.A. SCHUMAKER**, and C. Stephen. 2012. Agreement between the caudal fold test and serological tests for the detection of *Mycobacterium bovis* infection in bison. *Preventive Veterinary Medicine* 105 (4): 326-330. <https://doi.org/10.1016/j.prevetmed.2012.02.019>  
Role: Contributing author.
6. **SCHUMAKER, B.A.**, M.M. Miller, P. Grosdidier, J.L. Cavender, D.L. Montgomery, T.E. Cornish, R.M. Farr, M. Driscoll, L.J. Maness, T. Gray, D. Petersen, W.L. Brown, J. Logan, and D. O'Toole. 2012. Canine distemper outbreak in pet store puppies linked to a high-volume dog breeder. *Journal of Veterinary Diagnostic Investigation* 24 (6): 1094-1098. <https://doi.org/10.1177/1040638712460531>  
Note: *This is one of the only manuscripts discussing disease in canine breeding facilities.*  
Role: Primary author; conducted epidemiologic analyses
7. **SCHUMAKER, B.** Risks of *Brucella abortus* spillover in the greater Yellowstone area. 2013. *OIE Scientific and Technical Review* 32 (1): 71-77. <https://doi.org/10.20506/rst.32.1.2185>  
Note: *An invited review of interspecies Brucella abortus transmission in the greater Yellowstone area.*
8. Miller, M.M., D. O'Toole, J.L. Cavender, T.E. Cornish, T.G. Dawson, J.M. Smylie, J.H. Fox, K.L. Hill, D.L. Montgomery, M. Vasquez, **B.A. SCHUMAKER**. 2013. Vaccine associated mucosal disease case study: demonstrating the importance of subsequent herd PI testing. *The Bovine Practitioner* 47 (2): 84-93. <https://doi.org/10.21423/bovine-vol47no2p84-93>  
Role: Direct contributions to analyses and manuscript writing.
9. Dohna, H., D.E. Peck, B.K. Johnson, A. Reeves, and **B.A. SCHUMAKER**. 2014. Wildlife-livestock interactions in a western rangeland setting: quantifying disease-relevant contacts. *Preventive Veterinary Medicine* 113 (4): 447-456. <https://doi.org/10.1016/j.prevetmed.2013.12.004>  
Note: *This manuscript takes advantage of an impressive dataset of cattle, deer, and elk locations in the Starkey Experimental Forest.*  
Role: Direct contributions to collaborative team, scientific design and manuscript writing.
10. Williams, A.L., T.J. Kreeger, and **B.A. SCHUMAKER**. 2014. Genetic selection favoring reduced susceptibility to chronic wasting disease in Rocky Mountain elk. *Ecosphere* 5 (5), Art. 60, pgs 1-10. <https://doi.org/10.1890/ES14-00013.1>  
Note: *This is an important paper that models disease impacts on a high profile Wyoming wildlife population.*  
Role: Directly mentored student as MS major advisor.
11. Jin, Y., **B. SCHUMAKER**, J. Logan, and C. Yao. 2014. Risk factors associated with bovine trichomoniasis in beef cattle identified by a questionnaire. *Journal of Medical Microbiology* 63 (9): 896-902. <https://doi.org/10.1099/jmm.0.074971-0>  
Role: Directly mentored student on analyses and manuscript writing as MS committee member.

12. Shirima, G.M., S.N. Masola, O.N. Malangu, and **B.A. SCHUMAKER**. 2014. Outbreak investigation and control case report of brucellosis: experience from livestock research center Mpwapwa Tanzania. *Onderstepoort Journal of Veterinary Research* 81 (1): 1-4. <https://doi.org/10.4102/ojvr.v81i1.818>  
Note: *This manuscript resulted from a collaboration with a visiting Borlaug fellow from Tanzania who studied brucellosis diagnostics and epidemiology at the University of Wyoming.*  
Role: Directly mentored scientific fellow in manuscript writing.
12. Chapinal, N., **B.A. SCHUMAKER**, B.T. Elkin, D.O. Joly, and C. Stephen. 2015. Bayesian analysis to evaluate tests for the detection of *Mycobacterium bovis* infection in free-ranging wild bison in the absence of a gold standard. *Journal of Wildlife Diseases* 51 (3): 619-625.  
<https://doi.org/10.7589/2013-09-254>  
Note: *This paper builds on prior research on Bayesian methods in the absence of a gold-standard test to evaluate bovine tuberculosis in free-ranging bison.*  
Role: Direct mentorship of post-doc student on analysis and manuscript writing
14. Hull, N.C., D. O'Toole, M.M. Miller, H. Shoults, R. Deck, W. Jones, G.C. Johnson, D.P. Shaw, and **B.A. SCHUMAKER**. 2015. Canine dysautonomia in a litter of Havanese puppies. *Journal of Veterinary Diagnostic Investigation* 27 (5): 627-631. <https://doi.org/10.1177/1040638715595838>  
Role: Directly mentored student as P.I./PhD major advisor.
15. Gerstner, S., J. Adamovicz, J. Duncan, W. Laegreid, K. Marshall, J. Logan, and **B. SCHUMAKER**. 2015. Prevalence and risk factors associated with ovine progressive pneumonia in sheep flocks in Wyoming. *Journal of the American Veterinary Medical Association* 247 (8): 932-937.  
<https://doi.org/10.2460/javma.247.8.932>  
Role: Directly mentored student as P.I.
16. Speiser, K.L., **B.A. SCHUMAKER**, W.E. Cook, T.E. Cornish, K.M. Cammack, and M.M. Miller. 2016. Comparison of the humoral response between sheep vaccinated with a killed-virus vaccine and those vaccinated with a modified-live virus vaccine against bluetongue virus serotype 17. *Journal of the American Veterinary Medical Association* 248 (9): 1043-1049.  
<https://doi.org/10.2460/javma.248.9.1043>  
Role: Directly mentored student as MS committee member.
17. Edmunds, D.R., M.J. Kauffman, **B.A. SCHUMAKER**, F.G. Lindzey, W.E. Cook, T.J. Kreeger, R.G. Grogan, and T.E. Cornish. 2016. Chronic wasting disease drives population decline of white-tailed deer. *PLoS ONE* 11(8): e0161127. <https://doi.org/10.1371/journal.pone.0161127>  
Role: Directly mentored student as PhD committee member.
18. Kauffman, M., D. Peck, B. Scurlock, J. Logan, T. Robinson, W. Cook, K. Boroff, and **B. SCHUMAKER**. 2016. Risk assessment and management of brucellosis in the southern greater Yellowstone area (I): A citizen-science based risk model for bovine brucellosis transmission from elk to cattle. *Preventive Veterinary Medicine* 132: 88-97.  
<https://doi.org/10.1016/j.prevetmed.2016.08.004>  
Role: Directly mentored student as Master's co-advisor.
19. Boroff, K., M. Kauffman, D. Peck, E. Maichak, B. Scurlock, and **B. SCHUMAKER**. 2016. Risk assessment and management of brucellosis in the southern greater Yellowstone area (II): Cost-benefit analysis of elk brucellosis prevalence reduction in the southern greater Yellowstone area. *Preventive Veterinary Medicine* 134: 39-48. <https://doi.org/10.1016/j.prevetmed.2016.09.025>  
Role: Directly mentored students as Master's co-advisor and committee member.

20. DeVivo, M.T., D.R. Edmunds, M.J. Kauffman, **B.A. SCHUMAKER**, J. Binfet, T.J. Kreeger, B.J. Richards, H.M. Schätzl, and T.E. Cornish. 2017. Endemic chronic wasting disease causes mule deer population decline in Wyoming. *PLoS ONE* 12(10): e0186512. <https://doi.org/10.1371/journal.pone.0186512>  
Role: Directly mentored student as PhD committee member.
21. Edmunds, D.R., S.E. Albeke, R.G. Grogan, F.G. Lindzey, D.E. Legg, W.E. Cook, **B.A. SCHUMAKER**, T.J. Kreeger, and T.E. Cornish. 2018. Chronic wasting disease influences activity and behavior in white-tailed deer. *Journal of Wildlife Management* 82 (1): 138-154. <https://doi.org/10.1002/jwmg.21341>  
Role: Directly mentored student as PhD committee member.
22. Woods, L.W., **B.A. SCHUMAKER**, P. Pesavento, B. Crossley, and P.K. Swift. 2018. Adenoviral hemorrhagic disease in California mule deer, 1990-2014. *Journal of Veterinary Diagnostic Investigation* 30(4): 530-537. <https://doi.org/10.1177/1040638718766036>  
Role: Conducted all epidemiologic data analysis.
23. Hull, N.C. and **B.A. SCHUMAKER**. 2018. Comparisons of brucellosis between human and veterinary medicine. *Infection Ecology & Epidemiology* 8 (1): 1-12. <https://doi.org/10.1080/20008686.2018.1500846>  
Role: Directly mentored student as PhD major advisor.
24. Hull, N.C., J. Miller, D. Berry, W. Laegreid, A. Smith, C. Klinghagen, and **B. SCHUMAKER**. 2018. Optimization of *Brucella abortus* protocols for downstream molecular applications. *Journal of Clinical Microbiology* 56(4): e01894-17. <https://doi.org/10.1128/JCM.01894-17>  
Role: Directly mentored student as PhD major advisor.
25. Elderbrook, M., **B. SCHUMAKER**, T. Cornish, D. Peck, and K. Sondgeroth. 2019. Seroprevalence and risk factors of *Brucella ovis* in domestic sheep in Wyoming. *BMC Veterinary Research* 15 (1), 246. <https://doi.org/10.1186/s12917-019-1995-5>  
Role: Directly mentored student as MS committee member.
26. Maloney, M., J. Merkle, D. Aadland, D. Peck, R.D. Horan, K. Monteith, T. Winslow, J. Logan, D. Finnoff, C. Sims, and **B. SCHUMAKER**. 2020. Chronic wasting disease undermines efforts to control the spread of brucellosis in the greater Yellowstone ecosystem. *Ecological Applications* 30 (6): e02129. <https://doi.org/10.1002/eap.2129>  
Note: *An analysis of the opposing costs and benefits of elk hunting, artificial feeding, and disease management in the southern greater Yellowstone area.*
27. Elderbrook, M.J., **B.A. SCHUMAKER**, M.W. Ueti, M.B. de Almeida, T.S.W.J. Vieira, R.F.C. Vieira, and K.S. Sondgeroth. 2020. Comparison of two ELISAs for detecting exposure to *Brucella ovis*. *Journal of Veterinary Diagnostic Investigation* 32 (5): 700-705. <https://doi.org/10.1177/1040638720943880>  
Role: Directly mentored student as MS committee member.
28. O'Toole, D., I.M. Häfliger, F. Leuthard, **B. SCHUMAKER**, L. Steadman, B. Murphy, C. Drögemüller and T. Leeb. 2021. X-linked hypohidrotic ectodermal dysplasia in crossbred beef cattle due to a large deletion in EDA. *Animals*.11 (3): 657. <https://doi.org/10.3390/ani11030657>

Last updated 2/12/2024

29. Kauffman, K., T. Cornish, K. Monteith, **B. SCHUMAKER**, T. LaSharr, K. Huggler, and M. Miller. 2021. Detection of deer atadenovirus A DNA in dam and offspring pairs of mule deer and elk. *Journal of Wildlife Diseases* 57 (2): 313-320. <https://doi.org/10.7589/JWD-D-20-00034>  
Role: Directly mentored student as MS committee member.
30. Bohlman, T., H. Waddell, and **B. SCHUMAKER**, 2023. A case of bacteremia and pneumonia caused by *Streptococcus equi* subspecies *equi* infection in a 70-year-old female following horse exposure in rural Wyoming. *Annals of Clinical Microbiology and Antimicrobials* 22 (65).  
<https://doi.org/10.1186/s12941-023-00602-1>  
Role: Directly mentored medical student.

#### MANUSCRIPTS IN PREPARATION

Kauffman, K., T. Cornish, K. Monteith, **B. SCHUMAKER**, and M. Miller. Genotype distribution of *Deer atadenovirus A* correlates with regional difference in Adenovirus Hemorrhagic Disease.  
Role: Directly mentored student as MS committee member.

Hull, N., W. Laegreid, B. Bonner, T. Cornish, W.H. Edwards, J. Miller, S. Amundson, P.R. Clarke, J. Berg, G. Andrews, J. Gigley, M. Miller, and **B.A. SCHUMAKER**. Development and validation of a novel real-time PCR for *Brucella abortus*.  
Role: Directly mentored student as PhD committee chair.

#### BOOK CHAPTER

**SCHUMAKER, B.A.** 2023. "Bovine brucellosis in North American wildlife" in *Wildlife Health/Disease and Conservation*. Johns Hopkins Press.

#### BOOK

Simmons, H. Contributors: C. Andreasen, C. Budke, P. Gibbs, T. Goldsmith, J. Kastner, T. McKenna, J. Rinderknecht, J. Roth, **B. SCHUMAKER**, C. Scott. 2012. *One Health Science and Technology: Supplement to Veterinary Science Preparatory Training for the Veterinary Assistant* Publication VM-006, FAZD Center.

#### REPORTS

Clifford, D.L., **B.A. SCHUMAKER**, T.R. Stephenson, V.C. Bleich, M. L. Cahn, B.J. Gonzales, and J.A.K. Mazet. 2007. Assessing risk of disease transmission at the wildlife-livestock interface: the case of the Sierra Nevada bighorn sheep. Department of Fish and Game Resource Assessment Program Final Report.

**SCHUMAKER, B.A.**, J.A.K. Mazet, G.E. Plumb, and J. Varley. Yellowstone Wildlife Health Program organizational workshop report, Montana State University - June 6th & 7th, 2007.

**SCHUMAKER, B.A.**, J.A.K. Mazet, J. Treanor, R. Wallen, I.A. Gardner, M. Zaluski, and T. E. Carpenter. 2010. A risk analysis of *Brucella abortus* transmission among bison, elk, and cattle in the northern greater Yellowstone area. Final Report to the California Cooperative Ecosystem Studies Unit, National Park Service.

Dohna, H., D.E. Peck, B.K. Johnson, A. Reeves, **B.A. SCHUMAKER**. 2011. Wildlife-livestock interaction in a western rangeland setting: Quantifying disease-relevant contact rates. Final Report to the Department of Homeland Security, Center for Foreign Animal and Zoonotic Disease Defense.

#### POPULAR ARTICLES

Last updated 2/12/2024

**SCHUMAKER, B.A.**, C. Yao, and J. Logan. 2010. “Trichomoniasis in Wyoming Beef Cattle: A new study from the University of Wyoming”. Published in the February issue of “Cow Country” the official magazine of the Wyoming Stockgrowers Association.

**SCHUMAKER, B.A.**, M. Miller, T. Cornish, and D. O’Toole. 2011. “An outbreak of canine distemper originating in a large-scale canine breeding facility”. Wyoming State Veterinary Laboratory Newsletter Volume 12, Issue 1.

**SCHUMAKER, B.A.**, D. O’Toole, K. Drumhiller, and N. Hull. 2011. “Canine dysautonomia – Still a mystery”. Wyoming State Veterinary Laboratory Newsletter Volume 12, Issue 3.

**SCHUMAKER, B.A.**, G. Andrews, J. Gigley, M. Miller, W. Laegreid, W. Edwards, and N. Hull. 2015. “Development of a new test for diagnosis of livestock brucellosis”. Agriculture Experiment Station Field Day Bulletin.

### **MEDIA APPEARANCES**

Zuckerman, L. “Brain-attacking worm linked to decline of Wyoming moose”. *Reuters* Oct 7, 2011.

Miller, S. “Seeking solutions: Scientists work to answer vital questions leading to wildlife and livestock health and management”. *UWyo Magazine* 15 (1) Sep 2013.

Miller, S. “UW seeks better brucellosis control through vaccine development, vaccination practices”. *Wyoming Livestock Roundup*

Wilkinson, T. “States still spreading brucellosis foolishness”. *Jackson Hole News & Guide* May 28, 2014.

Tippon, C. “University of Wyoming researchers suspect soil plays role in deadly dog disease”. *Casper Star-Tribune* August 4, 2014.

“Canine dysautonomia case confirmed in Iowa”. *IVMA Update* 23 (5) May 2015 issue: P16-17.

Thuermer Jr., A. “Study: Chronic wasting disease kills 19% of deer herd annually”. *WyoFile* December 15, 2015.

Sell, T. “Dog owners beware: No cure for canine dysautonomia”. *Scotssbluff Star Herald* Feb 6, 2016.

Elder, A. “UW researchers develop test for swine-related disease”. *Wyoming Public Media* Aug 28, 2017.

Sedgwick-Stearns, R. “Lurking threat: Three Wyoming vets researching canine dysautonomia”. *Tri-State Livestock News* February 5, 2019.

Kudelska, K. “CWD working group releases report with recommendations to Wyoming Game and Fish”. *Wyoming Public Media* November 8, 2019.

Newman, E. “Game and Fish developing new chronic wasting disease plan”. *Laramie Boomerang* May 28, 2019.

Klingsporn, K. “CWD panel hones recommendations for disease management”. *WyoFile* September 13, 2019.

Ufford, J. “New lab protocol is clearing Sublette herds”. *Sublette Examiner* February 3, 2020.



Last updated 2/12/2024

“Microsoft Awards Grants to the University of Wyoming”. *University of Wyoming News* March 2, 2020.

“UW Students, Professor Help with Wyoming COVID-19 Testing”. *University of Wyoming News* March 26, 2020.

Bridenstine, J. “UW Professor works to test COVID 19 samples”. *Wyoming News Now* March 29, 2020.

Haderlie, C. “Researchers at UW will study human, animal disease with AI”. *Wyoming Business Report* April 30, 2020.

“WWAMI medical student seeing patients in Rawlins for a month”. *Bigfoot99 News* July 8, 2022.

Black, H. and J. Make. “CFD may have spurred COVID-19 spread; stats not in”. *Wyoming Tribune Eagle* August 7, 2022.

“Medical students gain experience as rural health care providers, researchers in UW summer program”. *UW Communications* September 8, 2022.

“Dysautonomia: A rare disease plaguing dogs in the Midwest”. *Dogtime.com* January 11, 2023.

Fugate, V. “Legislature looks at our northern neighbors and medical students”. *Wyoming News Now* February 21, 2023.

Carlson, J. “Giving Back: Hoopes looks to serve community that served him”. *The Sheridan Press* March 30, 2023.

Finch, R. “Physicians of the future: WWAMI program celebrates first-year students by presenting their first white coats”. *Laramie Boomerang* September 11, 2023.

Schaefer, P. “Students in WWAMI program celebrate rural health”. *Buffalo Bulletin* September 15, 2023.

**ABSTRACTS & PRESENTATIONS (18 invited)** (bold font indicates the presenter)

1. **SCHUMAKER, B.A.** Ectopic ureters. UC Davis Veterinary Medical Teaching Hospital, July, 2002, Davis, CA.
2. **SCHUMAKER, B.A.** Pacheco’s disease. Los Angeles Zoo, August, 2004, Los Angeles, CA.
3. **SCHUMAKER, B.A.**, J.A.K. Mazet, B.J. Gonzales, P.H. Elzer, S.K. Hietala, and M.H. Ziccardi. Evaluation of the western immunoblot for use in diagnosing *Brucella abortus* infections in elk. 53<sup>rd</sup> Wildlife Disease Association Annual Conference, August 31, 2004, San Diego, CA.
4. **SCHUMAKER, B.A.** Brucellosis testing in elk populations. UC Davis Wildlife and Aquatic Animal Medicine Club Symposium, January 21, 2006, Davis, CA.
5. **SCHUMAKER, B.A.**, T.E. Carpenter, and P.J. White. Interspecies Disease Dynamics of Brucellosis in Yellowstone National Park. Poster presented at the 1<sup>st</sup> Annual Conference on Infectious Disease Dynamics, December 1-3, 2008, Pacific Grove, CA.
6. **SCHUMAKER, B.A.** The collaborative approach to research: Advantages and challenges. Biostatistics and Epidemiology Joint Symposium, March 6, 2009, Davis, CA.

7. **SCHUMAKER, B.A.**, P.J. White, J.A.K. Mazet, R. Frey, R. Wallen, J. Treanor, K. Aune, and T.E. Carpenter. A risk analysis of *Brucella* transmission among bison, elk, and cattle in the northern greater Yellowstone area (GYA). Poster presented at the 3<sup>rd</sup> Annual Department of Homeland Security University Network Summit, March 16, 2009, Washington, D.C.
8. **SCHUMAKER, B.A.** Brucellosis risk assessment in the greater Yellowstone Area. *Invited presentation* for the Southeastern Cooperative Wildlife Disease Study workshop on Wildlife Disease Risk Analysis, May, 2009, Athens, GA.
9. **SCHUMAKER, B.A.**, P.J. White, J.A.K. Mazet, R. Frey, R. Wallen, J. Treanor, and T.E. Carpenter. A risk analysis of *Brucella* transmission among bison, elk, and cattle in the northern greater Yellowstone area (GYA). Poster presented at the Annual Meeting for the Center of Foreign Animal and Zoonotic Disease Defense, June 30, 2009, College Station, TX.
10. **SCHUMAKER, B.A.**, B. Corso J. Rhyan, M. Philo, M. Salman, and I.A. Gardner. Field evaluation of the fluorescence polarization assay for use in diagnosing *Brucella abortus* infections in bison in the greater Yellowstone area. Greater Yellowstone Brucellosis Research Meeting, July 30, 2009, Bozeman, MT.
11. **SCHUMAKER, B.A.**, B. Corso J. Rhyan, M. Philo, M. Salman, and I.A. Gardner. Field evaluation of the fluorescence polarization assay for use in diagnosing *Brucella abortus* infections in bison in the greater Yellowstone area. 58<sup>th</sup> Wildlife Disease Association Annual Conference, August 6, 2009, Blaine, WA.
12. **SCHUMAKER, B.A.**, P.J. White, J. Treanor, R. Frey, J.A.K. Mazet, and T.E. Carpenter. Northern GYA risk assessment. 113<sup>th</sup> Annual Meeting of the United States Animal Health Association, October 11, 2009, San Diego, CA.
13. **SCHUMAKER, B.A.**, P.J. White, J. Treanor, R. Frey, J.A.K. Mazet, and T.E. Carpenter. A risk analysis of *Brucella* transmission among bison, elk, and cattle in the northern greater Yellowstone area (GYA). Annual Conference of the Western Section of the Wildlife Society, January 28, 2010, Visalia, CA.
14. **SCHUMAKER, B.A.**, J.A.K. Mazet, J. Treanor, R. Wallen, A. Tam, I.A. Gardner, M. Zaluski, and T.E. Carpenter. A risk assessment of *Brucella* transmission among bison, elk, and cattle in the northern greater Yellowstone area (GYA). Poster presented at the Annual Meeting for the Center of Foreign Animal and Zoonotic Disease Defense, July 7, 2010, College Station, TX.
15. **SCHUMAKER, B.A.**, J.A.K. Mazet, J. Treanor, R. Wallen, I.A. Gardner, M. Zaluski, and T.E. Carpenter. A risk analysis of *Brucella abortus* transmission among bison, elk, and cattle in the northern greater Yellowstone area (GYA). Yellowstone Wildlife Health Program Strategic Planning Meeting, September 14, 2010, Bozeman, MT.
16. Logan, J., M. Drew, N. Anderson, E. Liska, **SCHUMAKER, B.A.**, and B. McCluskey. GYA wildlife-livestock interface panel discussion. *Invited presentation* at the 114<sup>th</sup> Annual Meeting of the United States Animal Health Association, November 16, 2010, Minneapolis, MN.
17. **SCHUMAKER, B.A.**, T.E. Carpenter, I.A. Gardner, J.A.K. Mazet. Brucellosis transmission dynamics in the northern greater Yellowstone area. 114<sup>th</sup> Annual Meeting of the United States Animal Health Association, November 16, 2010, Minneapolis, MN.

18. **SCHUMAKER, B.A.** Brucellosis diagnostic testing and risk assessment. Wyoming Veterinary Medical Association Winter Meeting, December 4, 2010, Casper, WY.
19. **SCHUMAKER, B.A.**, C. Yao, and J. Logan. Trichomoniasis in WY beef cattle. Producer meeting, March 2, 2011, Sundance, WY.
20. Kauffman, M., B.A. SCHUMAKER, D. Peck. Priorities for a new research program on the epidemiology and economics of bovine brucellosis in the greater Yellowstone area, WSVL March 30-31, 2011. Brucellosis Coordination Team meeting, April 21, 2011, Cody, WY.
21. **SCHUMAKER, B.A.** RB51 adult/booster vaccination field trials. Wyoming Brucellosis Coordination Team meeting, September 15, 2011, Lander, WY.
22. **SCHUMAKER, B.A.** and D. Peck. Cost-benefit analysis of a reduction in elk brucellosis seroprevalence in the southern greater Yellowstone area. Wyoming Brucellosis Coordination Team meeting, September 15, 2011, Lander, WY.
23. **SCHUMAKER, B.A.** An introduction to disease modeling. *Invited presentation* for the Wyoming Department of Health, Epidemiology Work Group, November 17, 2011, Cheyenne, WY.
24. Drumhiller, K., N. Hull, D. O'Toole, M. Dundas, and B.A. SCHUMAKER. Canine dysautonomia: The Wyoming story. Wyoming Veterinary Medical Association meeting, December 3, 2011, Casper, WY.
25. Williams, A., J. Henningsen, R. Gerhold, A. Courtemanch, and B.A. SCHUMAKER. Distribution and feeding patterns for Tabanid flies, the vector of the arterial worm of sheep and cervids, *Elaeophora schneideri*. Poster presented at The Wildlife Society Wyoming Chapter meeting, December 7, 2011, Jackson, WY.
26. Kauffman, M., B. Rashford, B. Scurlock, D. Peck, W. Cook, T. Cornish, W.H. Edwards, J. Logan, M. Ebinger, P. Cross, and B.A. SCHUMAKER. A cost-benefit analysis of reducing *B. abortus* seroprevalence in southern GYA elk. Poster presented at The Wildlife Society Wyoming Chapter meeting, December 7, 2011, Jackson, WY.
27. Kauffman, M., K. Boroff, B. Rashford, B. Scurlock, D. Peck, W. Cook, T. Cornish, W.H. Edwards, J. Logan, M. Ebinger, P. Cross, and B.A. SCHUMAKER. A cost-benefit analysis of reducing *B. abortus* seroprevalence in southern GYA elk. Wyoming Brucellosis Coordination Team meeting, April 12, 2012, Cody, WY.
28. **SCHUMAKER, B.A.** and J. Adamovicz. RB51 booster studies. Wyoming Brucellosis Coordination Team meeting, April 12, 2012, Cody, WY.
29. Williams, A., J. Henningsen, R. Gerhold, A. Courtemanch, and B.A. SCHUMAKER. Distribution and feeding patterns for Tabanid flies, the vector of the arterial worm of sheep and cervids, *Elaeophora schneideri*. Private donor meeting, April 28, 2012, Jackson, WY.
30. **SCHUMAKER, B.A.** RB51 Safety Studies. Consortium for the Advancement of Brucellosis Science Meeting. June 14-15, 2012, Laramie, WY.

31. Dohna, H., D.E. Peck, B.K. Johnson, A. Reeves, and **B.A. SCHUMAKER**. Wildlife-livestock interactions in a western rangeland setting: Quantifying disease-relevant contact rates. 61<sup>st</sup> Wildlife Disease Association. July 24, 2012, Lyon, France.
32. Dohna, H., D.E. Peck, B.K. Johnson, A. Reeves, and B.A. SCHUMAKER. Contact rates between rangeland livestock and wild ungulates. 13<sup>th</sup> International Symposium on Veterinary Epidemiology and Economics. August 20-24, 2012, Maastricht, Netherlands.
33. **SCHUMAKER, B.A.** and D. O'Toole. Dysautonomia in dogs. Neuroscience seminar. September 6, 2012, Laramie, WY.
34. **SCHUMAKER, B.A.** RB51 and Cost-benefit studies. Brucellosis research meeting. September 11, 2012, Jackson, WY.
35. **SCHUMAKER, B.A.**, D. Peck, H. Dohna, A. Reeves, and B. Johnson. Disease investigations at the wildlife-livestock interface. Animal Science seminar. September 21, 2012, Laramie, WY.
36. Kauffman, M., B. Rashford, B. Scurlock, D. Peck, W. Cook, T. Cornish, H. Edwards, J. Logan, and B.A. SCHUMAKER. Resources selection functions for elk relative to cattle during the brucellosis transmission risk period in the southern GYA. Pathways to Success Conference & Training: Integrating Human Dimensions into Fish and Wildlife Management. September 24, 2012, Breckenridge, CO.
37. Hull, N., K. Drumhiller, D. O'Toole, and B.A. SCHUMAKER. Epidemiological investigation of canine dysautonomia in Wyoming. American Association of Veterinary Laboratory Diagnosticians. October 21, 2012, Greensboro, NC.  
*\*Award\* - AAVLD trainee travel award*
38. SCHUMAKER, B.A., M.M. Miller, J.L. Cavender, T.E. Cornish, D.L. Montgomery, D. O'Toole. Outbreak of canine distemper in pet store puppies linked to a high volume breeder. American Association of Veterinary Laboratory Diagnosticians. October 21, 2012, Greensboro, NC.
39. **SCHUMAKER, B.A.** RB51 studies. 116<sup>th</sup> United States Animal Health Association – Brucellosis in the greater Yellowstone area subcommittee. October 21, 2012, Greensboro, NC.
40. **SCHUMAKER, B.A.**, M.M. Miller, J.L. Cavender, T.E. Cornish, and D.L. Montgomery. The US pet trade in dogs and contagious disease: animal welfare impacts of an outbreak of canine distemper. 116<sup>th</sup> United States Animal Health Association – Animal Welfare Committee. October 24, 2012, Greensboro, NC.
41. Edmunds, D., F. Lindzey, B.A. SCHUMAKER, W. Cook, T. Kreeger, M. Kauffman, R. Grogan, and T. Cornish. Epidemiologic effects of chronic wasting disease on white-tailed deer population vital rates in South East Wyoming. The Wildlife Society Wyoming Chapter. November 13, 2012, Laramie, WY.
42. Speiser, K., W. Cook, T. Cornish, B.A. SCHUMAKER, K. Cammack, and M. Miller. Risk analysis of bluetongue virus infection in wild and domestic ungulates in Wyoming using GIS. Poster presented at The Wildlife Society Wyoming Chapter meeting, November 13, 2012.
43. DeVivo, M., D. Edmunds, B. Richards, T. Kreeger, B.A. SCHUMAKER, H. Schatzl, M. Stuart, F. Pickard, T. Cornish. Susceptibility of mule deer (*Odocoileus hemionus*) to chronic wasting disease

based on PrP genotype. Poster presented at The Wildlife Society Wyoming Chapter meeting, November 13, 2012.

44. Kauffman, M., K. Boroff, B. Rashford, B. Scurlock, D. Peck, W. Cook, T. Cornish, W.H. Edwards, J. Logan, and B.A. SCHUMAKER. An update on the cost-benefit analysis of reducing *B. abortus* seroprevalence in southern GYA elk. Poster presented at The Wildlife Society Wyoming Chapter meeting, November 13, 2012.
45. Dohna, H., D. Peck, A. Reeves, B. Johnson, and **B.A. SCHUMAKER**. Wildlife-livestock interactions in a western rangeland setting: Quantifying disease relevant contact rates. The Wildlife Society Wyoming Chapter. November 14, 2012, Laramie, WY.
46. Boroff, K., M. Kauffman, D. Peck, B. Scurlock, W. Cook, J. Logan, and B. SCHUMAKER. Cost-benefit analysis of elk brucellosis seroprevalence reduction in the southern GYA. International Symposium on Society and Resources. June 7, 2013, Estes Park, CO.
47. **SCHUMAKER, B.A.** Dysautonomia in dogs. *Invited presentation* for the Association of Veterinary Microbiologists Heartland Chapter meeting. July 12, 2013, Laramie, WY.
48. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, **B.A. SCHUMAKER**. Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. USAHA Subcommittee on Brucellosis in the Greater Yellowstone Area. October 20, 2013, San Diego, CA.
49. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, **B.A. SCHUMAKER**. Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. *Invited presentation* for the USAHA Committee on Wildlife Diseases. October 20, 2013, San Diego, CA.
50. Edmunds, D.R., M.T. DeVivo, **B.A. SCHUMAKER**, M.J. Kauffman, R.G. Grogan, F.G. Lindzey, W.E. Cook, T.J. Kreeger, H. Schaetzl, B.J. Richards, and T.E. Cornish. Chronic wasting disease ecology and epidemiology of mule deer and white-tailed deer in Wyoming. USAHA Committee on Wildlife Diseases. October 20, 2013, San Diego, CA.
51. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, **B.A. SCHUMAKER**. Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. USAHA Committee on Brucellosis. October 21, 2013, San Diego, CA.
52. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and B.A. SCHUMAKER. Cost-benefit analysis for reducing bovine brucellosis seroprevalence in southern greater Yellowstone area elk. The Wildlife Society Wyoming Chapter. October 29, 2013, Rock Springs, WY.
53. DeVivo, M., D. Edmunds, B. Richards, T. Kreeger, B. SCHUMAKER, and T. Cornish. Microevolution of a mule deer (*Odocoileus hemionus*) population affected by high prevalence of chronic wasting disease in southeast Wyoming. Poster presented at The Wildlife Society Wyoming Chapter, October 29, 2013, Rock Springs, WY.
54. Williams, A., J. Henningsen, and B.A. SCHUMAKER. Understanding how tabanids influence the prevalence of *Elaeophora schneideri* in moose populations around Wyoming, USA. Poster presented at The Wildlife Society Wyoming Chapter. October 29, 2013, Rock Springs, WY.

55. Edmunds, D.R., B.A. SCHUMAKER, M.J. Kauffman, F.G. Lindzey, W.E. Cook, T.J. Kreeger, R.G. Grogan, and T.E. Cornish. Ecology, epidemiology, and proposed management of chronic wasting disease in white-tailed deer in Wyoming. The Wildlife Society Wyoming Chapter. October 30, 2013, Rock Springs, WY.
56. **SCHUMAKER, B.A.** Brucellosis projects at WSVL. *Invited presentation* for the WY State-Federal Animal Health Work Conference. November 15, 2013, Laramie, WY.
57. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and **B.A. SCHUMAKER.** Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. Wyoming Veterinary Medical Association winter meeting. December 7, 2013, Casper, WY.
58. Kesterson, A.E., B.A. SCHUMAKER, S. Lake, S. Olsen, and J. Adamovicz. Evaluation of the role of cell-mediated immunity in efficacy of experimental alternative schedule of live attenuated RB51 vaccine against brucellosis in cattle. Poster presented at the Conference of Research Workers in Animal Diseases. December 8, 2013, Chicago, IL.
59. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and **B.A. SCHUMAKER.** Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. Wyoming Brucellosis Coordination Team meeting, April 17, 2014, Lander, WY.
60. Shoults, H., N.C. Hull, D. O'Toole, J. Fox, and B.A. SCHUMAKER. Outbreak investigation: Multiple cases of canine dysautonomia in a single household. Poster presented at the Rocky Mountain Branch of the American Society of Microbiology, April 19, 2014, Laramie, WY.
61. Williams, A., J. Henningsen, and B.A. SCHUMAKER. Comparing vectors among Wyoming moose populations with varying prevalence of *Elaeophora schneideri*. The North American Moose Conference. May, 2014, Girdwood, AK.
62. **SCHUMAKER, B.A.** Chronic wasting disease in North American ungulates. *Invited presentation* for the Southeastern Cooperative Wildlife Disease Study workshop. May, 2014, Athens, GA.
63. Lopez, J., N.C. Hull, J. Miller, D.J. Berry, and B.A. SCHUMAKER. Evaluation of commercial DNA extraction kits for *Brucella abortus* Strain 19. Poster presented at the National Science Foundation Experimental Program to Stimulate Competitive Research (EPSCoR) Summer Research Apprenticeship Program symposium. July 18, 2014, Laramie, WY.
64. Lopez, J., N.C. Hull, J. Miller, D.J. Berry, and B.A. SCHUMAKER. Evaluation of commercial DNA extraction kits for *Brucella abortus* Strain 19. National Science Foundation Experimental Program to Stimulate Competitive Research (EPSCoR) Summer Research Apprenticeship Program symposium. July 18, 2014, Laramie, WY.
65. DeVivo, M.T., D. Edmunds, B. Richards, T. Kreeger, B.A. SCHUMAKER, H. Schatzl, J. Binfet, and T. Cornish. Microevolution of mule deer affected by chronic wasting disease prevalence in southeast Wyoming. Poster presented at the Wildlife Disease Association. July 29, 2014, Bernalillo, NM.
66. Williams, A., W. Laegreid, M. Miller, J. Henningsen, and B.A. SCHUMAKER. Explaining elaeophorosis prevalence by examining the distribution and host preferences of tabanids. Poster presented at the Wildlife Disease Association. July 29, 2014, Bernalillo, NM.

67. Williams, A.L., W. Laegreid, M. Miller, J. Henningsen, and B.A. SCHUMAKER. Connecting tabanid relevance and prevalence with elaeophorosis in Wyoming moose. Wyoming Chapter of the Wildlife Society/ Central Mountains and Plains Section Joint Annual Meeting. August 26, 2014, Sheridan, WY.
68. DeVivo, M.T., D. Edmunds, B. Richards, T. Kreeger, B.A. SCHUMAKER, H. Schatzl, J. Binfet, and T. Cornish. Natural selection of mule deer associated with reduced susceptibility to chronic wasting disease. Wyoming Chapter of the Wildlife Society/ Central Mountains and Plains Section Joint Annual Meeting. August 26, 2014, Sheridan, WY.
69. Hull, N.C. G. Andrews, J. Gigley, W. Laegreid, M. Miller, and B.A. SCHUMAKER. Development of *Brucella* PCR assay and deployment in East Africa. Poster presented at the Department of Homeland Security – Zoonotic Animal Disease Defense conference. September 9, 2014, Nashville, TN.
70. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and B.A. SCHUMAKER. Use of citizen science to develop a cost-benefit analysis for bovine brucellosis seroprevalence reduction in southern greater Yellowstone area elk. Pathways to Success Conference & Training: Integrating Human Dimensions into Fish and Wildlife Management. October 6, 2014, Estes Park, CO.
71. Williams, A., T. Kreeger, and **B.A. SCHUMAKER**. Chronic wasting disease model of genetic selection favoring prolonged survival in Rocky Mountain elk (*Cervus elaphus*). **Invited presentation** for a meeting of United States Forest Service and Bureau of Land Management personnel. October 10, 2014, Jackson, WY.
72. Saeed, B.N., K. Mills, D. O’Toole, B.A. SCHUMAKER, B. Bisha, W. Laegreid. An improved primer set for the genotyping of *Clostridium perfringens*. American Association of Veterinary Laboratory Diagnosticians. October 17, 2014, Kansas City, MO.
73. Miller, M., A. Boerger-Fields, K. Mills, K. Musgrave, and B.A. SCHUMAKER. Terrestrial rabies in Wyoming, 3 decades of tracking. Poster presented at the American Association of Veterinary Laboratory Diagnosticians. October 17, 2014, Kansas City, MO.
74. Hull, N.C., H. Shoults, D. O’Toole, J. Fox, M. Miller, G. Johnson, D. Shaw, and B.A. SCHUMAKER. Outbreak investigation: Multiple cases of canine dysautonomia in a single household. Poster presented at the American Association of Veterinary Laboratory Diagnosticians. October 18, 2014, Kansas City, MO.
75. **SCHUMAKER, B.A.** Impacts of CWD on captive and free-ranging cervids. **Invited presentation** for the United States Animal Health Association Committee on Captive Wildlife and Alternative Livestock. October 21, 2014, Kansas City, MO.
76. DeVivo, M.T., D. Edmunds, B. Richards, T. Kreeger, B.A. SCHUMAKER, H. Schatzl, J. Binfet, and T. Cornish. Microevolution of a mule deer population affected by high chronic wasting disease prevalence in Southeast Wyoming. The Wildlife Society 21<sup>st</sup> Annual Conference. October 26, 2014, Pittsburgh, PA.
77. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and B.A. SCHUMAKER. An economic evaluation of management strategies aimed at reducing bovine

- brucellosis seroprevalence in southern greater Yellowstone area elk. The Wildlife Society. October 29, 2014, Pittsburgh, PA.
78. **SCHUMAKER, B.A.** Impacts of CWD on captive and free-ranging cervids. Wyoming Veterinary Medical Association. December 6, 2014, Casper, WY.
  79. Kauffman, M., K. Boroff, D. Peck, B. Scurlock, W. Cook, J. Logan, T. Robinson, and **B. SCHUMAKER**. Cost-benefit analysis for reducing bovine brucellosis prevalence in southern GYA elk. *Invited presentation* for the National Academy of Sciences committee on Revisiting Brucellosis in the Greater Yellowstone Area. September 16, 2015, Moran, WY.
  80. D. Peck, B. Wilson, T. Roberts, S. Ruff, K. Boroff, M. Kauffman, W. Cook, J. Ritten, C. Bastian, B. **SCHUMAKER**. “Cost of brucellosis prevention and management in GYA cattle”. National Academy of Sciences committee on Revisiting Brucellosis in the Greater Yellowstone Area. September 16, 2015, Moran, WY.
  81. D. Peck, B. Wilson, T. Roberts, S. Ruff, K. Boroff, M. Kauffman, W. Cook, J. Ritten, C. Bastian, B. **SCHUMAKER**. 2015. “Brucellosis through an economist’s lens: making sure the cure isn’t worse than the disease”. USGS-hosted Annual Brucellosis Research Meeting, Jackson, Wyoming. September 24, 2015.
  82. Dannele Peck, Bryan Wilson, Trent Roberts, Shane Ruff, Kari Boroff, Mandy Kauffman, Walt Cook, John Ritten, Chris Bastian, **BRANT SCHUMAKER**. “Brucellosis through an Economist’s Lens”. Annual Meeting of the U.S. Animal Health Association, Providence, Rhode Island. October 25, 2015.
  83. Boroff, K., D. Peck, M. Kauffman, and B. **SCHUMKAER**. Cost-benefit analysis of elk brucellosis prevalence reduction in the southern Greater Yellowstone Area. 14<sup>th</sup> International Symposium on Veterinary Epidemiology and Economics. November 3-7, 2015, Mérida, Yucatán, Mexico.
  84. Williams, A., T. Kreeger, and **B. SCHUMAKER**. Chronic wasting disease modeling in Rocky Mountain elk. *Invited presentation* to the Wyoming Game and Fish Commission meeting. November 6, 2015, Laramie, WY.
  85. Vaughan, C., N. Hull, J. Miller, and B. **SCHUMAKER**. The optimization of a novel qPCR assay for brucellosis. Poster presented at INBRE banquet. April 29, 2016, Laramie, WY.
  86. Vaughan, C., N. Hull, J. Miller, and B. **SCHUMAKER**. The optimization of a novel qPCR assay for brucellosis. Undergraduate Research Day. April 30, 2016, Laramie, WY.
  87. Miller, J., N. Hull, S. Amundson, C. Vaughan, S. Jacobs, and B. **SCHUMAKER**. Development and evaluation of real time PCR for detection and differentiation of *Brucella abortus* and vaccine strains. Poster presented at Undergraduate Research Day. April 30, 2016, Laramie, WY.
  88. Hull, N. and B. **SCHUMAKER**. Development and validation of a molecular assay for diagnosis of brucellosis. Consortium for the Advancement of Brucellosis Science. May 24, 2016, Denver, CO.
  89. Hull, N. and **B. SCHUMAKER**. Producer meetings. Current and future brucellosis diagnostics. WY producer meetings. July 18, 2016, Cody, WY.



90. Hull, N. and **B. SCHUMAKER**. Producer meetings. Current and future brucellosis diagnostics. WY producer meetings. July 19, 2016, Pinedale, WY.
91. Hull, N. and **B. SCHUMAKER**. Producer meetings. Current and future brucellosis diagnostics. WY producer meetings. July 25, 2016, Sheridan, WY.
92. Hull, N. and **B. SCHUMAKER**. Producer meetings. Current and future brucellosis diagnostics. WY producer meetings. July 26, 2016, Greybull, WY.
93. Elderbrook, M., T. Cornish, B. SCHUMAKER, D. Peck, and K. Sondgeroth. A comparison of two Enzyme-Linked Immunosorbent Assays (ELISAs) for determination of *Brucella ovis* seroprevalence in Wyoming domestic sheep. Poster presented at the American Association of Veterinary Laboratory Diagnosticians. October 15, 2016, Greensboro, NC.
94. Hull, N., S. Robbe-Austerman, J. Miller, W. Laegreid, D. Berry, C. Quance, C. Casey, and B. SCHUMAKER. The benchtop and field validation of a novel qPCR assay for the detection of *Brucella abortus* field strain and vaccine strains. Poster presented at the American Association of Veterinary Laboratory Diagnosticians. October 15, 2016, Greensboro, NC.  
**\*Award\* - J. Lindsay Oaks Best Student Molecular Biology Poster Presentation; AAVLD trainee travel award**
95. Hull, N., S. Robbe-Austerman, J. Miller, W. Laegreid, D. Berry, C. Quance, and B. SCHUMAKER. Validation of a novel qPCR assay for the detection of *Brucella abortus* field strain. American Society of Microbiology – Rocky Mountain Branch. November 5, 2016. Denver, CO.
96. Hull, N. and B. SCHUMAKER. Current and future brucellosis diagnostics. Wyoming Veterinary Medical Association winter meeting. December 3, 2016, Casper, WY.
97. Amundson, S., N. Hull, and B. SCHUMAKER. Test validation of a novel real-time PCR assay to detect *Brucella abortus* field strain. American Society of Microbiology – Rocky Mountain Branch. April 15, 2017. Denver, CO.  
**\*Award\* - First Place, Undergraduate Oral Presentation**
98. Hull, N., S. Robbe-Austerman, J. Miller, S. Amundson, W. Laegreid, C. Quance, and **B. SCHUMAKER**. Poster presented at INBRE conference. April, 2017. Laramie, WY.
99. Elderbrook, M., T. Cornish, B. SCHUMAKER, D. Peck, and K. Sondgeroth. Seroprevalence of *Brucella ovis* and associated risk factors in Wyoming domestic sheep. American Association of Veterinary Laboratory Diagnosticians. October, 2017, San Diego, CA.
100. Elderbrook, M., T. Cornish, B. SCHUMAKER, D. Peck, R.T. Chideroli, U.P. Pereira, M. Ueti, and K. Sondgeroth. A tale of two ELISAs: Which serological assay more accurately detect *B. ovis* antibodies in Wyoming domestic sheep? October, 2017, San Diego, CA.
101. Lee, W.C., B. SCHUMAKER, A. Edmondson, A. Louie, N. Silva Del Rio, A. Pires, and B. Lopez. Risk assessment of Brucellosis introduction into California from Greater Yellowstone Area and Neighboring Counties. October, 2017, San Diego, CA.
102. **SCHUMAKER, B.A.** *Brucella* diagnostic test development: Research update. **Invited presentation** at the Brucellosis Coordination Team meeting. May 22, 2018, Lander, WY.

103. **SCHUMAKER, B.A.** Discussion of Ugandan brucellosis – What is possible for disease control? **Invited presentation** at Ugandan brucellosis meeting. August 15, 2018, Entebbe, Uganda.
104. **SCHUMAKER, B.A.** A novel quantitative-PCR for *Brucella abortus*. **Invited presentation** at Brucellosis summit. September 26, 2018, Cody, WY.
105. Elderbrook MJ, Johnson A, Vieira T, Hines S, Vieira R, SCHUMAKER B.A., Sondgeroth KS. Comparison of Three ELISAs for Detection of Exposure to *Brucella ovis*. American Association of Veterinary Laboratory Diagnosticians. October, 2018, Kansas City, MO.
106. Soehn, M., S. Amundson, N. Hull, A. Smith, and B. SCHUMAKER. Implementing a novel molecular assay in Uganda for brucellosis control. Poster presented at “Wyoming Goes Global” event. Center for Global Studies. March 25, 2019, Laramie, WY.
107. **SCHUMAKER, B.A.** Historia del control de la brucelosis bovina en Estados Unidos. Rol de los animals silvestres. **Invited presentation** at Instituto Nacional de Tecnologia Agropecuaria. July 29, 2019, Buenos Aires, Argentina.
108. **SCHUMAKER, B.A.** Historia del control de la brucelosis bovina en Estados Unidos. Rol de los animals silvestres. **Invited presentation** at National Service of Agri-Food Health and Quality (SENASA). July 30, 2019, Buenos Aires, Argentina.
109. **SCHUMAKER, B.A.** Historia del control de la brucelosis bovina en Estados Unidos. Rol de los animals silvestres. **Invited presentation** at INTA Economics hub. July 30, 2019, Buenos Aires, Argentina.
110. Kauffman, K., T. Cornish, B.A. SCHUMAKER, K. Montieth, M. Hayes, T. Lasharr, K. Huggler, M.M. Miller. 2019. Detection of deer adenovirus A in vaginal samples from mule deer (*Odocoileus hemionus*) and Rocky Mountain elk (*Cervus elaphus nelsoni*) and potential transmission to offspring. American Association of Veterinary Laboratory Diagnosticians. October 26, 2019, Providence, RI.
111. Peck, D., M. Maloney, J. Merkle, D. Aadland, R. Horan, K. Montieth, T. Winslow, J. Logan, D. Finnoff, C.B. Sims, and B. SCHUMAKER. Two diseases meet at the livestock-wildlife interface. Can we manage for *both*? CRWAD Conference, Population Health featured talk. November 3, 2019, Chicago, IL.
112. SCHUMAKER, B.A. presented by W. Laegreid. Diagnostic changes for brucellosis. Wyoming Veterinary Medical Association. December 7, 2019, Laramie, WY.
113. **SCHUMAKER, B.A.** Diagnostic changes for brucellosis. **Invited presentation** at Brucellosis Informational Meeting of the Upper Green River Ranching Association. January 28, 2020, Pinedale, WY.
114. Cross, P. and **B.A. SCHUMAKER**. Ecology of brucellosis in the Greater Yellowstone Ecosystem. **Invited presentation** at migratory ungulates and private lands workshop. June 10, 2020, virtual meeting.
115. **SCHUMAKER, B.A.** COVID surveillance and response: Notes from the field. American Association of Veterinary Laboratory Diagnosticians. October 12, 2020, virtual meeting.

116. Krueger, K., C. Porter, **B.A. SCHUMAKER**, and P. Shihab. *Invited presentation* at UW Panel Discussion on Global Vaccine Inequity. September 9, 2021, University of Wyoming Global Engagement Office
117. Katircioglu, S., S.S. Lichtenberg, H. Inzalaco, A. Herbst, P. Cross, B. SCHUMAKER, and D.P. Walsh. Characterizing the effects of pure clay on the RT-QuIC detection of CWD Prions in a natural soil. Poster presented at the Wildlife Disease Association meeting. July 27, 2022, Madison, WI.
118. McCormick, B., P. Cross, J. Malmberg, J. Binfet, E. Maichak, C. Stewart, and B. SCHUMAKER. Environmental transmission of chronic wasting disease (CWD) associated with agricultural salt and mineral sites. Poster presented at The Wildlife Society 29<sup>th</sup> annual conference. Nov, 2022, Spokane, WA.
119. Martinez, S., B. SCHUMAKER, and T. Quest. Impact of dermatology access in rural melanoma detection. Western Medical Research Conference. January 19, 2023, Carmel, CA.
119. Hollinger, H., P. Edeen, J. Reed, and **B. SCHUMAKER**. Careers in biomedical sciences panel discussion. INBRE annual conference. April 22, 2023, Laramie, WY.
120. McCormick, B., P. Cross, J. Malmberg, J. Binfet, E. Maichak, C. Stewart, and B. SCHUMAKER. Reducing potential environmental chronic wasting disease transmission at livestock salt and mineral licks. 4<sup>th</sup> Annual International CWD Symposium. May/June, 2023, Denver, CO.

## **GRANTS**

### **PROPOSALS FUNDED** (\* active grants) [Total: \$3.963M; External: \$2.748M; Internal: \$1.215M]

1. UC Davis Wildlife Health Center Student Research Grant. “Evaluation of the western immunoblot for use in determining *Brucella abortus* infections in elk.” 2002-2006. Budget: \$5,000. (Principal Investigator: Michael Ziccardi DVM, MPVM, PhD)
2. United States Department of Agriculture (USDA). “Assessment of brucellosis transmission among bison, elk and cattle in the northern greater Yellowstone area.” 2008-2010. Budget: \$58,000. (Principal Investigator: Tim Carpenter, PhD)
3. Center for Foreign Animal and Zoonotic Disease Defense (FAZD). “Livestock-wildlife interactions in a western rangeland setting: Impacts on epidemiologic models of FMD.” 2009-2010. Budget: \$84,919. (Principal Investigator: Dannele Peck, PhD)
4. Co-principal investigator, University of Wyoming, College of Agriculture and Natural Resources, Agricultural Experiment Station. “Trichomoniasis in Wyoming beef cattle.” 2011-2013. Budget: \$60,000. (Principal Investigator: Chaoqun Yao, MD, PhD)
5. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Adult and Booster Vaccination strategies to prevent brucellosis in at-risk cattle: A comparison of reproductive losses.” 2011-2012. Budget: \$42,000.
6. Co-investigator, Wyoming Wildlife Livestock Disease Research Partnership. “Risk analysis of bluetongue virus infection in wild ungulates in Wyoming using GIS technology.” 2011-2012. Budget: \$56,550. (Principal Investigator: Myrna Miller, DVM, PhD)

7. Principal investigator, Wyoming Wildlife Livestock Disease Research Partnership. “Distribution and feeding patterns for Tabanid flies, the vector of the carotid worm of sheep and cervids.” 2011-2014. Budget: \$83,880.
8. Principal investigator, Wyoming Wildlife Livestock Disease Research Partnership. “Cost-benefit analysis of a reduction in elk brucellosis seroprevalence in the southern greater Yellowstone area.” 2011-2014. Budget: \$85,929.
9. Principal investigator, USDA-APHIS cooperative agreement. “Cost-benefit analysis of a reduction in elk brucellosis seroprevalence in the southern greater Yellowstone area.” 2011-2013. Budget: \$175,000.
10. Co-investigator, USGS. “Population Level Impacts of Chronic Wasting Disease in Wyoming Mule Deer.” 2011-2015. Budget: \$500,000.” (Principal Investigator: Todd Cornish, DVM, Dip.ACVP, PhD)
11. Co-principal investigator, University of Wyoming. “Evaluation of the Role of Cell-Mediated Immunity in Efficacy of Experimental Alternative Schedule of Live Attenuated RB51 Vaccine against Brucellosis in Cattle.” 2011-2013. Budget: \$74,471. (Principal Investigator: Jeff Adamovicz, PhD, RBP)
12. Co-principal investigator, University of Wyoming, College of Agriculture and Natural Resources, Agricultural Experiment Station. “Evaluation of the Role of Cell-Mediated Immunity in Efficacy of Experimental Alternative Schedule of Live Attenuated RB51 Vaccine against Brucellosis in Cattle.” 2011-2013. Budget: \$53,829. (Principal Investigator: Jeff Adamovicz, PhD, RBP)
13. Principal investigator, Wyoming Livestock Board brucellosis funds. “Evaluation of the Role of Humoral and Cell-Mediated Immunity in the Efficacy of Experimental Alternative Schedule of Live-Attenuated RB51 Vaccination against Brucellosis in Cattle.” 2011-2013. Budget: \$25,000.
14. Co-principal investigator, UW Office of Academic Affairs. University of Wyoming Graduate Mentoring Initiative. 2012-2014. Budget: \$46,404.44.
15. Co-principal investigator, Wyoming Livestock Board. “Trichomoniasis in Wyoming beef cattle.” 2012-2013. Budget: \$20,000. (Principal Investigator: Chaoqun Yao, MD, PhD)
16. Principal investigator, Teton Science School Cooperative Agreement. “Distribution and feeding patterns for Tabanid flies, the vector of the arterial worm of sheep and cervids, *Elaeophora schneideri*.” 2012-2013. Budget: \$10,300.
17. Principal investigator, Wyoming Governor’s Big Game License Coalition. “The relevant vectors of *Elaeophora schneideri* in Wyoming.” 2012-2014. Budget: \$20,000.
18. Co-principal investigator, USDA/FAS/OCBD. “Scientific exchanges East Africa (Kenya, Uganda, and Tanzania) in brucellosis training and control program development.” 2013. Budget: \$112,000. (Principal Investigator: Walter Cook, DVM, PhD)
19. Principal investigator, Meg and Bert Raynes Wildlife Fund. “Distribution, prevalence, and feeding patterns for Tabanid flies, the vector of the arterial worm of sheep and cervids, *Elaeophora schneideri*.” 2013-2014. Budget: \$4,939.

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20. Co-investigator, Wyoming Wildlife-Livestock Disease Research Partnership. “Identification of epizootic hemorrhagic disease virus serotype and genotype presence and distribution in the state of Wyoming.” 2013-2015. Budget: \$61,236. (Principal Investigator: Myrna Miller DVM, PhD)
21. Principal investigator, FAZD Center HS-STEM Career Development fellowship for Noah Hull. 2013-2016. Budget: \$104,121.
22. Principal investigator, Wyoming Department of Agriculture brucellosis funds. “Polymerase chain reaction diagnostic test creation and validation for brucellosis.” 2013-2014. Budget: \$15,500.
23. Principal investigator, Wyoming Department of Agriculture – Agriculture Producer Research Grant Program. “Development and validation of a polymerase chain reaction test for diagnosis of *Brucella abortus* infections in livestock in Wyoming.” 7/1/14-7/31/16. Budget: \$40,000.
24. Co-Principal investigator, Wyoming Department of Agriculture – Agriculture Producer Research Grant Program. “Evaluation of the role of cell-mediated immunity in efficacy of experimental alternative schedule of live attenuated RB51 vaccine against brucellosis in cattle.” 2014. Budget: \$19,000. (Principal Investigator: Jeff Adamovicz, PhD, RBP)
25. Principal investigator, NASA Wyoming Space Grant fellowship in support on Jonathan Miller. “Food security and safety for long-term space expedition.” 2014-2015. Budget: \$5,000.
26. Principal investigator, Summer Research Apprenticeship Program in support of John Lopez. 2014. Budget: \$3,000.
27. Principal investigator, Wyoming Wildlife Livestock Disease Research Partnership. “Development and validation of a polymerase chain reaction assay for diagnosis of bovine brucellosis.” 11/3/14-9/30/17. Budget: \$68,212.83.
28. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Detection and differentiation of field and vaccine strains of *Brucella abortus* infections in livestock and wildlife in the greater Yellowstone area.” 10/29/14-6/30/16. Budget: \$33,960.
29. Principal investigator, University of Wyoming Canine Dysautonomia fund. 2014. Private donations. Budget: \$1,382.
30. Principal investigator, NASA Wyoming Space Grant fellowship in support on Jonathan Miller. “Food security and safety for long-term space expedition, Year 2.” 2015-2016. Budget: \$5,000.
31. Principal investigator, University of Wyoming Canine Dysautonomia fund. 2015. Private donations. Budget: \$1,875.
32. Co-investigator, USDA-Animal and Plant Health Inspection Service. “Animal Disease Economics Research: Small Ruminant Feedlots, Wildlife-Livestock Interactions, and Foreign Animal Disease Outbreaks.” 2015-2016. Budget: \$60,000. (Principal Investigator: Dannele Peck, PhD)
33. Principal investigator, Western Sustainable Agriculture Research & Education. “Increasing sustainable agriculture through enhanced diagnostics with *Brucella* infection.” 8/1/15-7/31/17. Budget: \$24,818.

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34. Principal investigator, College of Agriculture and Natural Resources Brucellosis Funds. “Detection and differentiation of field and vaccine strains of *Brucella abortus* infections in livestock and wildlife in the greater Yellowstone area – Supplemental Request.” 12/6/15-6/30/16. Budget: \$20,189.
35. Co-Principal investigator, UW College of Agriculture and Natural Resources. “Impact of histophilosis on bovine respiratory disease on commercial beef operations.” 1/1/16-12/31/18. Budget: \$90,000. (Principal Investigator: Kerry Sondgeroth, DVM, PhD)
36. Principal investigator, University of Wyoming Canine Dysautonomia fund. 2016. Private donations. Budget: \$575.
37. Principal investigator, EPSCoR undergraduate research fellowship in support of Corinne Vaughan. “The validation of a novel qPCR assay for brucellosis.” 2016-2017. Budget: \$4,500.
38. Principal investigator, NASA Wyoming Space Grant fellowship in support of Sierra Amundson. “Ensuring a safe and secure food supply for long-term space expedition.” 2016-2017. Budget: \$5,000.
39. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Validation of a novel qPCR assay for detection and differentiation of *Brucella abortus*, *B. suis*, and *B. melitensis* field strains and vaccine strains.” 4/20/16-06/30/16. Budget: \$23,572.
40. Co-Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Quantifying wildlife-livestock interactions to inform brucellosis modeling.” 4/20/16-6/30/16. Budget: \$30,000.
41. Principal investigator, INBRE Graduate Assistantship in support of Noah Hull. 2016-2017. Budget: \$31,350.
42. Principal investigator, Institute for Infectious Animal Diseases veterinary internship in support of Chrissy Casey. 2016. Budget: \$8,000.
43. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Field performance of a novel assay for brucellosis in the greater Yellowstone area”. 7/1/16-6/30/18. Budget: \$117,686.
44. Principal investigator, NASA Wyoming Space Grant graduate fellowship in support of Noah Hull. “Validation of ante-mortem samples on a novel diagnostic assay for food security and safety of long-term space expeditions”. 2017-2018. Budget: \$31,808.
45. Principal investigator, NASA Wyoming Space Grant fellowship in support of Sierra Amundson. “Validation of diagnostic assay for long-term space expeditions”. 2017-2018. Budget: \$5,000.
46. Principal investigator, Bucholz summer undergraduate student research award in support of Callie Klinghagen. 2017. Budget: \$3,000.
47. Co-principal investigator, Center for Food Animal Health. “Risk assessment of *Brucella abortus* introduction into California and evaluation of the current brucellosis vaccination program.” 2017. Budget: \$20,000. (Principal Investigator: Beatriz Martinez Lopez, DVM, MPVM, PhD)

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48. Principal investigator, Foundation for Food and Agriculture Research: Rapid Outcomes from Agricultural Research. “The validation of a novel qPCR assay for the rapid detection of *Brucella suis*”. 6/1/17-5/31/18. Budget: \$149,135.80.
49. Principal investigator, INBRE undergraduate research fellowship in support of Callie Klinghagen. “The development of an antemortem test for swine brucellosis”. 2017-2018. Budget: \$1,600.
50. Principal investigator, USDA-FAS Borlaug fellowship for Stella Atim. “Molecular characterization and phylogeny of *Brucella* isolates from recent animal disease surveillance program in Uganda”. 7/1/17 – 12/31/19. Budget: \$40,000.
51. Principal investigator, University of Wyoming International Travel Grant Program. “Implementing a novel diagnostic assay in Uganda for brucellosis control”. 10/11/17 – 10/17/18. Budget: \$2,000.
52. Principal investigator, UW College of Agriculture and Natural Resources – Global Perspectives Grant Program. “Implementing a novel molecular assay in Uganda for brucellosis control”. 1/1/18 – 10/17/18. Budget: \$5,000.
53. Principal investigator, UW College of Agriculture and Natural Resources Brucellosis Funds. “Brucellosis funding supplemental request”. 7/1/18-6/30/19. Budget: \$8,500.
54. Principal investigator, UW College of Agriculture and Natural Resources Brucellosis Funds. “Are *Brucella abortus* qPCR amplicons from viable or dead bacteria? 7/1/18-6/30/19. Budget: \$30,000.
55. Principal investigator, Bucholz summer undergraduate student research award in support of Meagan Soehn. 2018. Budget: \$3,000.
56. Principal investigator, University of Wyoming Center for Global Studies. “Molecular characterization of *Brucella* isolates from cattle in Uganda”. 2018. Budget: \$5,000.
57. Principal investigator, INBRE Undergraduate fellowship in support of Meagan Soehn. “Validation of a novel molecular assay for swine brucellosis. 2018-2019. Budget: \$5,000.
58. Co-principal investigator, UW College of Agriculture and Natural Resources – Global Perspectives Grant Program. “Economic benefits of vaccination against brucellosis in cattle of Argentina and Wyoming”. 2018-2019. Budget: \$6,000. (Principal Investigator: Benjamin Rashford, PhD)
59. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Increasing diagnostic sensitivity of a molecular assay for detection of *Brucella abortus*”. 7/1/19-6/30/20. Budget: \$45,000.
60. Principal investigator, Bucholz summer undergraduate student research award in support of Callie Klinghagen. 2019. Budget: \$3,000.
61. Principal investigator, NASA Wyoming Space Grant fellowship in support of Callie Klinghagen. “Increasing accurate detection of *Brucella abortus*, a zoonotic foodborne pathogen”. 2019-2020. Budget: \$5,000.
62. Principal investigator, NASA Wyoming Space Grant fellowship in support of Meagan Soehn. “Enhancing detection of a zoonotic foodborne pathogen, *Brucella suis*”. 2019-2020. Budget: \$5,000.

63. \*Principal investigator, USDA-FAS Borlaug fellowship for Matios Indaylalu. “Improving outbreak investigation capacity for anthrax cases in human and animals: mainly through supporting the capacity for isolation and molecular characterization of *Bacillus anthracis* in Ethiopia“. 9/30/19-9/30/22. Budget: \$50,000.
64. \*Fellowship host. Fulbright fellowship in support of Natalia Aznar. “Bovine brucellosis within-herd modeling to simulate infection dynamics and evaluate control strategies and management benefits.” 2019-2021.
65. \*Principal investigator. UW College of Agriculture and Natural Resources – Global Perspectives Grant Program. “Implementation of molecular diagnostics for anthrax (*Bacillus anthracis*) in Ethiopia”. 1/1/20 – 10/17/21. Budget: \$8,000.
66. Co-principal investigator. National Animal Health Laboratory Network. “One Health Wyoming: Enhancing Interlaboratory Coordination for Emerging Diseases”. 1/6/2020-11/1/2020. Budget: \$55,321. (Principal investigator: Will Laegreid, DVM, PhD)
67. Principal investigator. Microsoft AI4Earth. “Camera trap image analysis for efficient study of chronic wasting disease transmission”. 4/1/2020-3/31/2021. Budget: \$15,000.
68. Principal investigator. University of Wyoming, College of Agriculture and Natural Resources Brucellosis Funds. “Field performance of DNA bait hybridization for molecular detection of *Brucella abortus*”. 7/1/20-6/30/21. Budget: \$49,212.
69. \*Principal investigator. Knobloch Family Foundation. “Environmental pathways of chronic wasting disease transmission”. 2020-2023. Budget: \$266,400.
70. Principal investigator. USGS Cooperative Agreement. “Environmental pathways of chronic wasting disease transmission”. 2020-2023. Budget: \$91,352.
71. Principal investigator. Riverbend Ranch Endowment in Wildlife-Livestock Health. Pilot Research Project Competitive Grants Program. “Bioeconomic analysis of management options for chronic wasting disease and brucellosis in the greater Yellowstone area”. 2021-2024. Budget: \$152,738.
72. \*Co-investigator. Riverbend Ranch Endowment in Wildlife-Livestock Health. Pilot Research Project Competitive Grants Program. “Parasitic nematode prevalence and transmission dynamics at the Wyoming wildlife-livestock interface with special respect to anthelmintic drug resistance distribution in ruminants”. 2020-2023. Budget: \$149,523. (Principal Investigator: Berit Bangoura DVM, PhD, DipEVPC)
73. \*Co-investigator. USDA-NIFA. “A bioeconomic approach to managing spatial wildlife-livestock disease risks and valuing ecosystem (dis-) services”. 2020-2023. Budget: \$499,971. (Principal Investigator: Rick Horan, PhD)
74. Principal investigator, NASA Wyoming Space Grant fellowship in support of Emma Swan. “Application of remote sensing to determine disease risks”. 2021-2022. Budget: \$5,000.

**CONTRACTS FUNDED** (\* denotes active contracts)

Principal investigator, USDA-APHIS cooperative agreement. “Project proposal/ work plan and budget for managing animal health technical services, cattle health, equine, cervids and small ruminant health for 2015.” 4/1/15-6/30/15. Budget: \$13,653.



Principal investigator, Wyoming Livestock Board. “Project proposal/ work plan and budget for managing animal health technical services, cattle health, equine, cervids and small ruminant health for 2015.” 6/25/14-6/30/16. Budget: \$218,000.

Principal investigator, USDA-APHIS cooperative agreement. “Project proposal/ work plan and budget for managing animal health technical services, cattle health, equine, cervids and small ruminant health for 2015.” 4/1/15-3/31/16. Budget: \$140,531.16.

Principal investigator, USDA-APHIS cooperative agreement. “Project proposal/ work plan and budget for managing animal health technical services, cattle health, equine, cervids and small ruminant health for FY2016.” 4/1/16-3/31/17. Budget: \$140,531.16

Principal investigator, USDA-APHIS cooperative agreement. “Managing animal health technical services, cattle health, equine, cervids and small ruminant health for FY-2017”. 4/1/17-3/31/18. Budget: \$133,504.

Principal investigator, USDA-APHIS cooperative agreement. “Managing animal health technical services, cattle health, equine, cervids and small ruminant health for FY-2018”. 4/1/18-3/31/19. Budget: \$133,504.

Principal investigator, USDA. “Puerto Rico tick surveillance for brucellosis”. 2019. Budget: \$1,000.

Principal investigator, Wyoming Livestock Board. “Brucellosis testing, regulatory serology and other brucellosis related services”. 7/16/18-6/30/20. Budget: \$203,830.

Principal investigator, USDA-APHIS cooperative agreement. “Managing animal health technical services, cattle health, equine, cervids and small ruminant health for FY-2019”. 4/1/19-3/31/20. Budget: \$274,504.

Principal investigator, Wyoming Livestock Board. “Brucellosis diagnostic testing support 2020-2022”. 7/31/2020-6/30/22. Budget: \$303,830.

Principal investigator, USDA-APHIS contract. “Brucellosis testing – Wyoming”. 2020-2021. Budget: \$258,412.25.

### **PROPOSALS NOT FUNDED**

1. Principal investigator, Center for Foreign Animal and Zoonotic Disease Defense (FAZD). “Effects of hunting pressure on elk distribution and movements: Applications of variable hunting pressure in a foreign animal disease outbreak response.” 7/1/11-6/30/12. Budget: \$126,244. (Not supported).
2. Co-principal investigator, Center for Foreign Animal and Zoonotic Disease Defense (FAZD). “A new technique for estimating disease transmission probabilities using high-resolution animal location data: Application to livestock-wildlife interactions in a western rangeland setting.” 7/1/11-6/30/12. Budget: \$99,509. (Principal Investigator: Dannele Peck, Ph.D.). (Not supported).
3. Co-investigator, National Science Foundation – Partnerships for International Research and Education. “Collaborative research and education in “epinomic” modeling of diseases at the wildlife-livestock interface.” 2011. Budget: \$4,000,000. (Principal Investigator: Dannele Peck, Ph.D.). (Not supported).

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4. Principal investigator, Safari Club International Foundation. "Evaluation of *Elaeophora schneideri* in Wyoming moose." 6/1/12-5/31/13. Budget: \$4,998.50. (Not supported).
5. Principal investigator, Faculty Grant-in-aid Program (UW). "An epidemiological investigation of canine dysautonomia in Wyoming." 1/1/12-7/31/13. Budget: \$7,500. (Not supported).
6. Principal investigator, Morris Animal Foundation. "An epidemiological investigation of canine dysautonomia in Wyoming." 8/1/12-7/31/13. Budget: \$10,800. (Not supported).
7. Principal investigator, Morris Animal Foundation. "Anti-ganglionic antibodies as a mechanism for canine dysautonomia." 9/1/13-8/31/14. Budget: \$10,800. (Not supported).
8. Principal investigator, Pew Charitable Trust Scholar Program in the Biomedical Sciences. "Surveillance and diagnosis of human brucellosis in Tanzania." 2013. Budget: \$240,000. (Not supported).
9. Co-Principal investigator, Bill and Melinda Gates Foundation. "Enhancement of livestock health for sustainable livestock productivity in Tanzania through early brucellosis detection." 7/1/14-6/30/18. Budget: \$496,887. (Principal Investigator: Jeffrey Adamovicz, Ph.D., RBP) (Not supported).
10. Principal investigator, University of Wyoming, College of Agriculture and Natural Resources, Agricultural Experiment Station. "Development and validation of a polymerase chain reaction test for diagnosis of *Brucella abortus* infections in livestock and wildlife in the greater Yellowstone area." 1/1/14-8/1/16. Budget: \$75,000. (Not supported).
11. Principal investigator, NSF-Evolution and Ecology of Infectious Diseases. "Risk of disease transmission at the human-domestic animal-wildlife interface." 10/1/14-9/30/18. Budget: \$2,499,606. (Not supported).
12. Principal investigator, University of Wyoming Faculty Grant-in-aid Program. "Analytical sensitivity of PCR versus culture in *Brucella*-infected samples." 7/1/14-6/30/15. Budget: \$7,135.33. (Not supported).
13. Principal investigator, University of Wyoming Office of Research Presidential \$250,000 Grant Initiative. "Analytical sensitivity of PCR versus culture in *Brucella*-infected samples." 2014. Budget: \$22,305.98. (Not supported).
14. Principal investigator, Wyoming EPSCoR Undergraduate Research Fellowship in support of Jonathan Miller. "Validation of a molecular diagnostic assay for brucellosis using gel-based polymerase chain reaction." 2014. Budget: \$3,500. (Not supported).
15. Principal investigator, University of Wyoming Summer Graduate Research/ Graduate Student enhancement in support of Amy Williams. 2014. Budget: \$5,000. (Not supported).
16. Principal investigator, Institute for Infectious Animal Diseases Open Call for Proposals. "Development and validation of a PCR assay to detect and differentiate field and vaccine *Brucella* spp. of homeland security importance." 2014. Budget: Undefined. (Not supported).
17. Principal investigator, United Nations Food and Agriculture Organization. "FAO/IAEA diagnostic detection training program." 10/1/15-11/15/15. Budget: \$79,558.46. (Not supported).

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18. Principal investigator, USDA Foreign Agricultural Service. “Technical support to the USAID/ Tanzania economic growth PASA.” 6/1/15-5/31/18. Budget: \$2,500,000. (Not supported).
19. Co-investigator, University of Missouri, Faculty Research Grant Program. “Search for the etiologic agent of canine dysautonomia.” 1/1/16-12/31/16. Budget: \$18,000. (Not supported).
20. Co-principal investigator, USDA-APHIS. “Quantifying wildlife-livestock interactions to inform disease modeling.” 10/1/16-9/30/19. Budget: \$209,000. (Not supported).
21. Principal investigator, NASA Wyoming Space Grant graduate fellowship in support of Noah Hull. “Creation of novel diagnostics for food security and safety of long-term space expedition.” 2016-2017. Budget: \$20,000. (Not supported).
22. Principal investigator, Rotary District 5440 Global Scholarship in support of Noah Hull. 2016-2018. Budget: \$30,000. (Not supported).
23. Principal investigator, Wyoming Space Grant Consortium Fellowship in support of Jessica Copeland. “Free-ranging livestock and wildlife: A comparison of seasonal associations and risk with remote sensing in the Rocky Mountain Region. 2018-2019. Budget: \$11,659. (Not supported).
24. Principal investigator, Western SARE. “Comparing seasonal associations between livestock and wildlife in the Rocky Mountain region. 6/1/18-5/31/20. Budget: \$24,200. (Not supported).
25. Principal investigator, UW College of Agriculture and Natural Resources Brucellosis Funds. “Elk-specific field performance of a novel diagnostic assay for brucellosis”. 7/1/18-6/30/19. Budget: \$120,600. (Not supported).
26. Co-investigator. Rocky Mountain Elk Foundation. “Investigating the ecology and management of brucellosis and elk in the Owl Creek Mountains of Wyoming”. 2020. Budget: \$7,500. (Not supported).

### **TEACHING (including guest lectures)**

HLSC 4010	Health Professions Admissions (1 cr; S’23; 36 students) – Guest lecturer
NURS 5604	Population Health & Health Policy (3 cr; S’23; 22 students) – Epidemiology unit lead
HM 6710	Fundamentals in Medical Science and Research (9 cr; Su’22-Present; 20 students) – Research Methods content lead
HM 6615/25/ 35/45	Themes in Medicine (4 cr/academic year; F’21-S’22; 20 students) – Co-lead
HM 6700	Research Methods (6 cr.; 2021; 20 students) – Course coordinator
PATB/MICR 4001/5001	Epidemiology (3 cr. annually; 2011-2021; 16-36 students (Avg. 25; 17 undergrad; 8 grad) Course coordinator
PATB 4170	Diseases of Wildlife (Spring semester, even years 2012-Present) – Guest lecturer
PATB 1101	First-year Seminar (2015-2019) – Guest lecturer
PATB 5515	Grad. Sem. Pathobiology (1 cr.; 2010-2017; 4-6 grad students) – Course coordinator
PATB 5900	Practicum in College Teaching (1 cr.; F’11, F’12, S’14, S’15, S’16; 1 student each semester; Graduate student teaching experience in PATB/MICR 4001/5001)
PATB 4050	Problems in Pathobio. (2-4cr.; S’12, S’14, F’15; F’16; F’19 1-2 undergrads) – Course coordinator
PATB 5505	Investigations in Pathobio. (2-3cr.; Summ’12, F’12; 1-2 students) – Course coordinator
PATB 5960	Thesis Research (1-8 cr.; Summ’12-Present; 1 graduate student) – Course coordinator

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PATB 5980 Dissertation Research (1-9 cr.; Summ'11, S'14, Summ'14, S'15, Summ'15, F'15, S'16; 1-2 graduate students) – Course coordinator  
PATB 5940 Continuous Registration (1 cr.; S'15; 1 graduate student) – Course coordinator  
HLSC 4/5990 Public Health Seminar (2012-2015) – Guest lecturer  
MOLB 1010 Science and Society (2014) – Guest lecturer  
ANSC 4630 Issues in Animal Science (2013) – Guest lecturer  
PATB 4130 Mammalian Pathobiology (2011) – Guest lecturer

#### WWAMI Teaching – Laramie, WY

HM 6700 Research Methods (Summ'18, Summ'19, F'19) – Guest lecturer  
HM 6610 Molecular and Cellular Basis of Disease (2018) – Guest lecturer  
HM 6650 Energetics and Homeostasis (2017) – Guest lecturer  
HM 6640 Blood and Cancer – Guest lecturer  
HM 6630 Cardio, Pulmonary and Renal (2017) – Guest lecturer  
HM 6620 Invaders and Defenders (2016) – Guest lecturer

#### University of Nebraska, Lincoln

NRES 498 Wildlife Health (2018) – Guest lecturer

#### Laramie County Community College

Animal Health and Management – Guest lecture, September 13, 2011

#### University of California, Davis

One Health Perspectives; “UC Davis Peer Presentation” - Seminar, May 17, 2010  
PMI 418 Health and Disease in Terrestrial Wildlife (2009) – Guest lecturer  
MPM 426 Applied Epidemiologic Problem Solving (2007) – Graduate Teaching Assistant; (2008) – Course Leader  
VME 294B Conservation Biology and Veterinary Medicine (2007) – Guest lecturer  
MPM 406 Epidemiology Study Design (2007-2008) – Graduate Teaching Assistant  
MPM 405 Principles of Epidemiology (2006-2007) – Graduate Teaching Assistant  
MPM 405L Introduction to Information Management (2006-2007) – Graduate Teaching Assistant  
UC Davis Freshman Seminar; “Disease Management in Free-ranging Populations” - Spring, 2006

### **ADVISING**

#### **Graduate students:**

##### ***Current (3)***

Sandra Biller – M.S. committee, 2023-Present  
Steven Millward – M.A. committee, 2022-Present  
Md Ashraful Islam Bhuiya – Ph.D. committee, 2021-Present

##### ***Previous (25)***

Bevin McCormick – M.S. Advisor, 2020-2023  
Thesis: *Transmission of chronic wasting disease associated with livestock mineral licks*  
Cody Jo Broten – Ph.D. committee, 2018-2022  
Garrett Catlin – M.S. committee 2021  
Tyler McLaughlin – M.S. Advisor, 2019-2021  
Thesis: *Use of magnetic bead extraction to increase diagnostic sensitivity of downstream qPCR for Brucella abortus*  
Sylvia Freeman – M.S. committee, 2019-2021  
Jessica Gordon – M.S. committee, 2018-2020  
Tayler Heintz – M.A. committee, 2018  
Kayla Kauffman – M.S. committee, 2017-2019

Michelina Meinzer – M.S. committee, 2016-2018

Jessica Copeland – M.S. Advisor, 2017-2018

Noah Hull – PhD Advisor, 2014-2018

Dissertation: *Epidemiology of brucellosis in the greater Yellowstone area utilizing a novel diagnostic assay*

Molly Elderbrook – M.S. committee, 2015-2017

Matthew Cuzzocreo – M.S. committee, 2014-2017

Rachel Jennings – PhD committee, 2013-2016

Melia DeVivo – PhD committee, 2010-2015

Amy Williams – M.S. Advisor, 2011-2015

Thesis: *Distribution and feeding patterns for Tabanid flies, the vectors of the carotid artery worm, Elaeophora schneideri*

Alex Kesterson – M.S. committee, 2012-2015

Krista Latta – M.S. committee, 2013-2014

Bayar Saeed – M.S. committee, 2013-2014

Kari Boroff – M.S. committee, 2011-2013

Mandy Kauffman – M.S. Co-Advisor, 2010-2013

Thesis: *Using survey data to model the probability of elk-cattle co-occurrence during the winter/early spring brucellosis transmission risk period in the southern greater Yellowstone area*

David Edmunds – PhD committee, 2011-2013

Yinzhu Jin – M.S. committee, 2011-2013

Kelsie Speiser – M.S. committee, 2011-2013

Alisa Siceloff – PhD committee, 2012

#### Medical student research mentees:

##### *Previous (3)*

Hyrum Hopkin, 2023

Tristan Bohlman 2022-2023

Sara Martinez 2022-2023

#### Undergraduate research mentees:

##### *Previous (33)*

Elizabeth Lungren – Undergraduate research mentor, 2022-2024; not for credit

Erin Schwalbe – Undergraduate research mentor, 2022-2023; not for credit

Mackenzie Thomas – Undergraduate research mentor, 2020-2023; not for credit

Seth Boss – Undergraduate research mentor, 2021-2022; not for credit

Kaatje Fisk – Undergraduate research mentor, 2020-2022; not for credit

Emma Swan – Undergraduate research mentor, 2020-2022; not for credit

Erin Krieger – Undergraduate research mentor, 2022; not for credit

Kali Fernald – Undergraduate research mentor, 2022; not for credit

Lindsay Rinner – Undergraduate research mentor, 2022; not for credit

Maggie Rossman – Undergraduate research mentor, 2022; not for credit

Kyla Baldrige – Undergraduate research mentor, 2021; not for credit

Troy Davis – Undergraduate research mentor, 2020-2021; not for credit

Clara Delahaye – Honor's thesis mentor, 2020-2021; not for credit

Samyr Wissar – Undergraduate research mentor, 2020; not for credit

Meagan Soehn – Undergraduate research mentor, 2018-2020; not for credit

Callie Klinghagen – Undergraduate research mentor, 2017-2020; not for credit

Taylor Cortez – Undergraduate research mentor, 2019; 2 credits

Sierra Amundson – Undergraduate research mentor, 2015-2019; not for credit

Lynnell Hanson – Undergraduate research mentor, 2017-2018; not for credit

Sam Jacobs – Undergraduate research mentor, 2016; not for credit  
Mitchell Mayfield – Undergraduate research mentor, 2016; 3 credits  
Corinne Vaughan – Undergraduate research mentor, 2016; not for credit  
Jonathan Miller – Undergraduate research mentor, 2014-2016; not for credit  
Nika Martin – Undergraduate research mentor, 2015; 2 credits  
Robert West – Undergraduate research mentor, 2015; not for credit  
Brittney Rodgers – Honor’s thesis mentor, 2014-2015; not for credit  
Hannah Shoults – Undergraduate research mentro, 2014; not for credit  
David Berry – Undergraduate research mentor, 2013-2014; 3 credits  
Erin Ma – Undergraduate research mentor, 2013; not for credit  
Adam Sittner – Undergraduate research mentor, 2014; 3 credits  
BreAnna Bonner – Undergraduate research mentor, 2012-2013; 2 credits  
Kathryn Drumhiller – Undergraduate research mentor, 2011-2012; 4 credits  
Noah Hull – Undergraduate research mentor, 2011-2012; 4 credits

**High School student research mentees:**

*Previous*

John Lopez – Summer Research Apprenticeship Program student, 2014

**Official peer mentees:**

Noah Hull (2018-Present)

Callie Klinghagen (2020-Present)

**Pre-Veterinary Medicine professional mentees:**

*Previous (11)*

Isaiah Lacey (2020-2021)

Abigail Farmer (2020-2021)

Alexis Holscher (2020-2021)

Maggie Rossman (2020-2021)

Madeline Stoddard (2020-2021)

Mary Graham (2019-2020)

Ross Slagowski (2019-2020)

Vivienne Miller (2019-2020) – Pre-Medical mentee

Ian Anderson (2019)

Stephanie Morrow (2019)

Janika Sweeney (2019)

**Undergraduate Academic advisees:**

*Previous (44)*

Sophia Dexheimer (2017-2021)

Erika Eckhardt (2016-2021)

Callie Klinghagen (2017-2020)

Kathryn Egelhoff (2016-2020)

Sierra Amundson (2015-2020)

Jessica Jennings-Gaines (2013-2020)

Mitchell Hovis (2017-2018)

Madison Werner (2017-2018)

Raegan Merrill (2017-2018)

Robert Ziegler (2015-2018)

Allison Careswell (2016-2018)

Emilee Inez (2016-2017)

Austin Lopez (2017)  
Chelsi Wiejaczka (2017)  
Ashley Rinetti (2016-2017)  
Makayla Eatmon (2017)  
Amber Codr (2016-2017)  
Kaitlyn Barrett (2016-2017)  
Shailah Geist (2014-2017)  
Sarah Myers (2013-2017)  
Megan Weisensee (2013-2017)  
Minske, Michelle (2016-2017)  
Connor Madsen (2015-2016)  
Timsan Wilkie (2015-2016)  
Hannah Shoults (2014-2016)  
Laura Strohecker (2014-2016)  
Emilee Brinton (2013-2016)  
Megan MacFarlane (2013-2016)  
Jonathan Miller (2013-2016)  
Carissa Poindexter (2012-2016)  
Kathryn Schumacher (2011-2015)  
Brittney Rodgers (2011-2015)  
Katherine Hayes (2014-2015)  
Lane Wilson (2014-2015)  
Heidi Edwards (2013-2014)  
Carly Stewart (2012-2014)  
A'Leonne Johnston (2012-2013)  
Carolyn Hammersmark (2011-2013)  
Stephanie Duckett (2012)  
Sydni Krosschell (2012)  
Shealynne Yeager (2011-2012)  
Katie Walker (2011-2012)  
Katherine Brandenburg (2011)  
Alecia Cushman (2011)

**Other educational experience:**

*Borlaug fellows, Infectious Disease Diagnostics and Epidemiology*

Matios Lakew (2020)  
Stella Atim (2018)  
Paul Boma (2013)  
John Bosco Kalule (2013)  
George Makingi (2013)  
Evalyn Mwihia (2013)  
Portas Olwande (2013)  
Gabriel Shirima (2013)

**SERVICE & PROFESSIONAL ACTIVITIES**

**ACADEMIC AND COMMUNITY SERVICE**

Ad-hoc Reviews: USGS, PLoS ONE, Oxford University Press, Frontiers in Veterinary Epidemiology, Wyoming Space Grant Consortium, BioScience, Alberta Prion Research Program, Human-Wildlife Interactions, UW Water Research Program

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Medicaid State-University Partnership Learning Network (2023-Present)  
DEI Committee, American Association for Veterinary Laboratory Diagnosticians (2022-Present)  
Brucellosis Scientific Advisory Subcommittee, United States Animal Health Association (2021-Present)  
Fulbright Specialist Program (Current tenure slated for 2021-2025)  
Tuberculosis Scientific Advisory Subcommittee, United States Animal Health Association (2019-Present)  
Epidemiology Committee Co-chair, American Association for Veterinary Laboratory Diagnosticians (2018-Present)  
Committee on Cattle and Bison, United States Animal Health Association (6/1/17-Present)  
Laramie Open School Board Member (2017-2019; 2021-Present)  
Committee on Wildlife and Captive Wildlife, United States Animal Health Association (2013-Present)  
Wyoming Domestic Sheep/ Bighorn Sheep Interaction Working Group (12/10-Present)  
Expert Panel for CWD in elk associated with NEPA process for Bridger Teton National Forest feedground decision (2022)  
Alternate delegate, American Association of Veterinary Laboratory Diagnosticians House of Delegates (2011-2021)  
Wyoming representative, Western Interstate Commission on Higher Education Veterinary Medicine Advisory Council (2017-2021)  
COVID-19 Surge Team, Wyoming Public Health Laboratory (2020)  
Wyoming Game and Fish Department CWD Stakeholder Working Group (2019-2020)  
Committee on Brucellosis, United States Animal Health Association (2009-2017)  
Wildlife Disease Association Student Awards Committee (9/12-5/17)  
AVMA Committee on Environment Issues (8/12-8/16)  
AVMA Council on Public Health and Regulatory Veterinary Medicine (7/10-8/16)  
AVMA Food Safety Advisory Committee (2/11-2014); Vice-chair (2012); Chair (2013-2014)  
External Advisory Board - USDA Mycobacterial Diseases of Animals Multistate Initiative, AVMA-CPHRVM (10/12-2/14)  
Thorne-Williams Wildlife Research Unit IACUC Committee (2013)  
USAHA Johne's Disease Working Group Liaison, AVMA-CPHRVM (9/10-10/12)  
AVMA Advisory Subcommittee, California Veterinary Medical Association (2007-2011)  
International Programs Committee, UC Davis School of Veterinary Medicine (2009-2010)  
Student Governor, California Veterinary Medical Association (6/03-6/04)

#### **UNIVERSITY OF WASHINGTON/WWAMI**

UWSOM Educational Data Governance Committee (2021-2023)  
UWSOM Innovations in Curriculum Design and Delivery Working Group (2022-2023)

#### **UNIVERSITY OF WYOMING/DEPARTMENTAL**

UW Job Description Working Group (2022)  
UW COVID-19 Vaccination Plan Working Group (2020-2022)  
UW COVID-19 Emergency Executive Policy Group (2021)  
UW COVID-19 Surveillance Testing Epidemiology and Referral Team Co-Lead (2020-2021)  
UW COVID-19 Surveillance Testing Working Group (2020-2021)  
Department of Veterinary Sciences COVID-19 response team (2020-2021)  
Search committee, Serology Technician III (2020-2021; Samantha Clinton hired)  
Search committee, Serology Technician II (2020; Tucker Bean hired)  
UW COVID-19 Presidential Advisory Committee (2020): Four person committee that met daily to review information on COVID-19 to advise the President regarding potential changes to UW operations and course delivery  
UW COVID-19 Contingency Working Group (2020)  
UW COVID-19 Testing, Tracing, and Support Working Group (2020)  
UW COVID-19 Technology Working Group (2020)



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UW COVID-19 Government Relations Working Group (2020)  
Search committee, UWBF scientific director (2019-2020; Elizabeth Case hired)  
Search committee chair, Serology Technician II (2019; Kara Robbins hired)  
Undergraduate education committee; undergraduate coordinator (2017-2020)  
Microbiology program steering committee (2015-Present)  
Department Representative, Wyoming Chapter of the Gamma Sigma Delta Honor Society for Agriculture (2014-2020)  
Search committee chair, Serology Technician III (2019; Sylvia Freeman hired)  
Search committee, COANR Dean (2018-2019; Barbara Rasco hired)  
Search committee, Anatomic Pathologist (2017-2018; Jennifer Malmberg hired)  
UW Advising Redesign Action Group (2017-2018)  
President, Wyoming Chapter of the Gamma Sigma Delta Honor Society for Agriculture (2017-2018)  
Graduate education committee, Veterinary Sciences (2011-2018); graduate coordinator (2011-2017)  
COANR strategic planning committee (2016-2017)  
Search committee, Office staff (2017; Elizabeth Foster hired)  
Faculty Senate alternate, Veterinary Sciences (2011-2017)  
Vice President, Wyoming Chapter of the Gamma Sigma Delta Honor Society for Agriculture (2016-2017)  
Assessment coordinator, Veterinary Sciences (2011-2017)  
Treasurer/Secretary, Wyoming Chapter of the Gamma Sigma Delta Honor Society for Agriculture (2015-2016)  
Search committee, Veterinary Toxicologist (2016; position line cut from University budget)  
Search committee chair, Diagnostic Pathologist (2014-2015; Juan Munoz-Gutierrez hired)  
Search committee, Excellence Chair in Disease Ecology (2013; Holly Ernest hired)  
Search committee, Regulatory Serology technician (2013; Sylvia Green hired)  
Search committee, Office staff (2013; Denise Manore hired)  
University Studies Program committee (8/11-5/14); Chair (8/12-5/14)  
GA allocation committee, UW College of Agriculture and Natural Resources (2012)  
Search committee, Office staff (12/11-2/12; Kathryn Talbott hired)  
Search committee, WSVL director. (2011; Will Laegreid hired)

#### **PROFESSIONAL DEVELOPMENT ACTIVITIES**

Interface Disease Models Investigative Workshop, National Institute for Mathematical and Biological Synthesis (NIMBioS; 2011)  
Modeling Johne's Disease Investigative Workshop, National Institute for Mathematical and Biological Synthesis (NIMBioS; 2014)

#### **PROFESSIONAL AFFILIATIONS**

American Association of Veterinary Laboratory Diagnosticians (2015-Present)  
United States Animal Health Association (2008-Present)  
Wildlife Disease Association (2003-Present)

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**Professional References:**

Suzanne Allen, MD, MPH  
Vice Dean for Academic, Rural and Regional Affairs  
University of Washington School of Medicine  
[suzaalle@uw.edu](mailto:suzaalle@uw.edu)  
(206) 543-5560  
Direct supervisor within UWSOM

David Jones  
Professor Emeritus, Division of Communication Disorders  
Previous Dean, College of Health Sciences  
[DLJones@uwyo.edu](mailto:DLJones@uwyo.edu)  
(307) 399-6991  
Previous direct supervisor

Robert Monger, MD, FACP  
Assistant Dean for Clinical Medical Education in Wyoming  
University of Washington School of Medicine  
[monger@uw.edu](mailto:monger@uw.edu)  
(307) 432-9264  
Assistant Dean clinical counterpart in Wyoming

Tim Robinson, PhD  
Professor, Department of Mathematics & Statistics  
Former Director, Wyoming WWAMI Medical Education Program  
University of Wyoming  
[tjrobin@uwyo.edu](mailto:tjrobin@uwyo.edu)  
(307) 766-2497  
Predecessor in Wyoming WWAMI director role

Will Laegreid, DVM, PhD  
Professor, Department of Veterinary Sciences  
Former Department Head and Director, Wyoming State Veterinary Laboratory  
University of Wyoming  
[wlaegrei@uwyo.edu](mailto:wlaegrei@uwyo.edu)  
(307) 766-9929  
Previous direct supervisor

Additional references available upon request