

CONTACT INFORMATION

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Executive Summary

My lab at the University of Wyoming aims to better understand the cellular and molecular mechanisms associated with circadian disruption and how exercise can be used to treat disruption. My total funding (PI, Co-PI, student grants) over the past 7 years at the University of Wyoming is over 1.6 million, with another 2 million currently under review at NIH. I am funded to study the molecular mechanisms underlying how timing of exercise can be used as a therapeutic intervention to realign a disrupted circadian clock. I serve as a project lead within the Wyoming Sensory Biology Center for Biomedical Research Excellence (COBRE) funded by National Institute of General Medical Science of the National Institutes of Health. My research goals closely align with my teaching responsibilities with the Division of Kinesiology & Health (DKH). In DKH my teaching responsibilities primarily include teaching Exercise Physiology and Exercise Psychology in the undergraduate curriculum, as well as Advanced Exercise Physiology and Concepts of Human Aging in the graduate curriculum. I spent the past 7 years (2018-2025) as the block-lead in WWAMI-WY (Wyoming's Medical School through the University of Washington School of Medicine, Seattle) of the Cancer, Hormones, and Blood block where I lead medical students through topics like anemia, blood cancers, solid tumor cancers, and physiological principles related to pituitary, adrenal, and thyroid glands. I was also the research coordinator for WWAMI medical students guiding them through research opportunities during their medical education journey. I currently serve as the co-coordinator of our Graduate Studies in DKH where I recruit, mentor, and help lead our Graduate Faculty meetings. Alongside these responsibilities, I have worked to establish myself as an independent investigator, mentoring undergraduate, graduate, and medical students in the scientific method while advancing research on circadian rhythm disruption and the role of exercise in realigning the molecular clock.

EDUCATION AND TRAINING

2018	Post-Doctoral Training	Toxicology, Biomedical Sciences Texas A&M University, College Station, TX Advisor: Weston W. Porter, PhD
2015	PhD	Kinesiology Texas A&M University, College Station, TX Advisor: J. Timothy Lightfoot, PhD
2009	MS	Clinical Exercise Physiology The University of North Carolina at Charlotte, Charlotte, NC Advisor: Michael Turner, PhD
2007	BS	Exercise/Sport Science Elon University, Elon, NC Advisors: Paul Miller, PhD and Walter Bixby, PhD

ACADEMIC POSITIONS

2024-present	Associate Professor Kinesiology & Health University of Wyoming, Laramie, WY
2018-2024	Assistant Professor Kinesiology & Health University of Wyoming, Laramie, WY
2018-2025	Affiliate Instructional Professor WWAMI; Rehabilitation Medicine, School of Medicine University of Washington, Seattle, WA
2015-2018	Postdoctoral Fellow Toxicology, College of Veterinary Medicine and Biomedical Sciences Texas A&M University, College Station, TX
2014-2015	Director of Athlete Testing Huffines Institute for Sports Medicine Texas A&M University, College Station, TX
2011-2015	Teaching Assistant Physical Education Activity Program Texas A&M University, College Station, TX
2009-2011	Clinical Exercise Physiologist Strides to Strength, Presbyterian Hospital Charlotte, NC
2007-2009	Graduate Assistant, Health & Wellness Coordinator Mecklenburg County Senior Centers Charlotte, NC
2006-2007	Research Assistant Health & Human Performance Elon, NC

HONORS AND AWARDS

2025	College of Health Sciences, Division of Kinesiology & Health Research Award
2025	College of Health Sciences, WWAMI Medical Education Research Award
2024	Featured in TIME Magazine for contribution to article, "The 6 Best Strategies for Coping with Jet Lag" https://time.com/7001547/how-to-avoid-jet-lag/
2022	UWSOM Research Mentorship Award
2021	WyCOA Faculty Travel Award
2020	Top Professor Nomination, University of Wyoming Mortar Board
2017	Top Poster Presentation, Texas Circadian Biology & Medicine Meeting
2017	1 st Place Postdoctoral Flash Talk
2015	Outstanding Graduate Student of the Year in Kinesiology
2012	Outstanding Graduate Assistant Nominee in Physical Education Program

FUNDED GRANTS AND CONTRACTS

Total amount funded at University of Wyoming: \$1,637,902

Funded Grants as PI: Research

Total Funded (\$613,026)

1. Montana INBRE Tech Access Grant	1/1/2024-6/1/2024
"Benzyl Butyl Phthalate Effects on Norepinephrine Metabolism"	\$566.00

2. Wyoming Sensory Biology COBRE Mini-Grant in Data Science for Brain Health "The Role of Exercise in Controlling Central Mediators of Circadian Rhythm"	11/01/2023-06/30/2024	\$8,000
3. Wyoming COBRE 3-year Project Lead (Sensory Biology) "The Role of Exercise in Controlling Central Mediators of Circadian Rhythm" (\$150,000/year)	8/1/2023-7/31/2026	\$450,000
4. Wyoming COBRE 1-year Pilot Project (Sensory Biology) "The Role of Exercise in Controlling Central Mediators of Circadian Rhythm"	8/1/2023-7/31/2024	\$75,000
<i>Declined due to Scientific Overlap (See above Grant #1)</i>		
5. Wyoming NIH INBRE Thematic Research Project "Physical Activity as a Novel Tool to Reset the Misaligned Molecular Clock"	5/1/2021-4/30/2023	\$150,000
6. Wyoming NIH INBRE Equipment Grant Small Equipment Grant for Purchase of SubCue DataLoggers	5/1/2020-4/30/2021	\$2,500
7. Montana INBRE Tech Access Grant "Quantification of Metabolites in Disrupted/Non-Disrupted Mice"	12/1/2021-6/1/2022	\$1,960

Funded Grants as Co-PI: Research

Total Funded (\$970,876)

1. NIH/NICHHD R21 Pru (PI), Schmitt and Bruns (Co-I) "PGRMC proteins as biomarkers of fertility and overall health status"	9/11/2023-6/30/2025	\$397,375
2. Wyoming INBRE NOSI Application NOT-GM-23-034 Schmitt, Bruns, Bedford (Co-Is) "The neurodevelopment of voluntary urination in mice"	9/1/2023-8/31/2025	\$547,486
3. IDeA National Resource for Quantitative Proteomics Voucher Schmitt and Bruns (Co-I) "The cardiac molecular clock as a novel driver of circadian rhythm"	7/1/2022-11/1/2022	\$3,015
4. College of Health Sciences Faculty Grant in Aid Schmitt, Johnson, Bruns (Co-I) "High Intensity Interval Training Effects on Arginine Vasopressin Circadian Rhythm"	6/1/2020-5/31/2021	\$3,000
5. Jackson Aging Center Pilot Award Schmitt and Bruns (Co-I)		
6. Wyoming NIH INBRE Equipment Grant Schmitt, Johnson, Bruns (Co-I) Small Equipment Grant for Purchase of Fluorescent Microscope for UW K&H Investigators	5/1/2019-4/30/2020	\$20,000

Funded Grants as PI: Teaching

Total Funded (\$10,000)

1. Wyoming NASA Space Grant Consortium, Faculty Education Enhancement Grant Schmitt (PI), Johnson (Co-I) "On-line Asynchronous Classroom Curriculum Development Project Proposal"	7/1/2023-6/30/2024	\$10,000
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Student Mentored Grants

Total Funded (\$44,000)

1. Wyoming Research Scholars Undergraduate Research Fellowship Hernandez, Gustavo. Role: Mentor "Investigating the Role of Exercise in Restoring SCN Function and Circadian Health"	9/1/2024-5/1/2025	\$6,000
2. Wyoming NASA Space Grant Consortium Undergraduate Research Fellowship Hernandez, Gustavo. Role: Mentor "Tik-Tock, Exercise O'clock: Exercising to Outmaneuver Circadian Disruption and Stay Sharp in Space"	6/1/2025-5/1/2026	\$5,000
3. Wyoming INBRE Undergraduate Research Fellowship Hernandez, Gustavo. Role: Mentor "Investigating the Role of Exercise in Restoring SCN Function and Circadian Health"	9/1/2024-5/1/2025	\$6,000
4. Wyoming INBRE Undergraduate Research Fellowship Wyatt, Cole. Role: Mentor "The Effect of Exercise on Circadian Disruption in Mice"	6/1/2023-9/1/2024	\$6,000
5. RMACSM Student Research Grant Nelson, Cole. Role: Mentor "Lifelong Exercise to Project Against a Broken Clock"	5/1/2023-4/30/2024	\$1,000
6. Wyoming INBRE Undergraduate Research Fellowship Sapuppo, Ashleen. Role: Mentor "The Benefits of Exercise on Circadian Rhythm and Fertility"	10/1/2022-5/1/2023	\$6,000

7. RMACSM Student Research Grant	Marcello, Nick. Role: Mentor	1/1/2022-5/1/2022
“What Can the Central Clock Tell Us?”		\$1,000
8. RMACSM Student Research Grant	Koplin, Eva. Role: Mentor	5/1/2021-4/30/2022
“Protective Effects of Maternal Exercise Against Endocrine Disrupting Chemical Exposure”		\$1,000
9. Wyoming INBRE Undergraduate Research Fellowship	O’Connor, Aedrian. Role: Mentor	10/1/2021-5/1/2022
“Acclimation to Moderate Altitude Induces Physiological Adaptations in Mice”		\$6,000
10. Wyoming INBRE Undergraduate Research Fellowship	McCoy, Elijah. Role: Mentor	6/1/2021-9/1/2021
“Effect of Chrono-Timed Exercise on the Restoration of a Disrupted Circadian Rhythm”		\$6,000

Grants in Review

1. The Role of Time-Dependent Exercise in Influencing SCN Function. Emily Schmitt (PI) and William D. Todd (Co-I). R01 NIH submitted June 2025 to NIA. \$1.7 million.
2. Chrono-Exercise as an Intervention for Diet Induced Sleep Disruption. Roberts, Brandon (PI) and Emily Schmitt (Co-PI). R21 NIH submitted June 2025 to NIEHS. \$250,000

PUBLICATIONS

*Student Author, #Emily Schmitt as the Corresponding Author

Emily Schmitt as first and/or corresponding author: 5 since joining University of Wyoming

Refereed Journals

1. Taylor DS, Allotey AA, Fanelli RE, Satyanarayana SB, Bettadapura SS, Wyatt CR, Nelson AC, **Schmitt EE**, Bruns DR, Bedford NL (2025). Diurnal Regulation of Urinary Behavior and Gene Expression in Aged Mice. *Journal of Gerontology: Biological Sciences*.
2. Mancuso CJ, Bedard SP, Gillikin L, Kambanis PE, **Schmitt EE**, De Young KP (2025). Circadian Disruptions Alter Consumption Timing and Exacerbate Binge-Like Eating in Mice. *Journal of Circadian Rhythms*.
3. Nelson CF*, Wyatt CR*, Johnson EC, Todd WD, **Schmitt EE** (2025). Acute and Lifelong Endurance Exercise Yields Differential Effects During Circadian Disruption. *Medicine & Science in Sport & Exercise*.
4. Britz SM*, Nelson S*, Earhart KM*, Pru JK, **Schmitt EE** (2024). Circadian Disruption Impacts Fetal Development in Mice. *Journal of Circadian Rhythms*.
5. Miller KE, Walters J, Bautista JG, Smith BR, **Schmitt EE**, Bruns DR, Robinson TJ, Schlader ZJ, Johnson EC (2024). Validity and Test-Retest Reliability of a Hand-Held Ultrasound Device in Measuring Kidney Metrics in Healthy Young Adults. *Journal of Diagnostic Medical Sonography*.
6. O’Connor A*, Hatzenbiler DM*, Flom LT, Bobadilla AC, Bruns DR[^], **Schmitt EE**^{^#} (2023). Physiological and Morphometric Differences in Resident Moderate Altitude versus Sea Level Mice. *Aerospace Medicine and Human Performance*. [^]co-last
7. Yusifov A, Borders M, DeHoff M, Polson S, **Schmitt EE**, Bruns DB. (2023). Exercise During the Juvenile Period Protects Against Isoproterenol-Induced Cardiac Dysfunction Later in Life. *Journal of Applied Physiology*.
8. Herzl E, **Schmitt EE**, Shearrer G, Keith JF. (2023). The Effects of a Western vs. High-Fiber Unprocessed Diet on Health Outcomes in Mice Offspring. *Nutrients*.
9. Yusifova M*, Yusifov A, Polson S, Todd WD, **Schmitt EE**[^], Bruns DB[^]. (2023). Voluntary wheel running exercise does not attenuate circadian and cardiac dysfunction caused by conditional deletion of BMAL1. *Journal of Biological Rhythms*. [^]co-last
10. Fullerton ZS, McNair BD, Marcello NA*, **Schmitt EE**, Bruns DB. (2022). Chronic exposure to high altitude hypoxia promotes loss of muscle mass that is not rescued by metformin. *High Altitude Medicine Biology*.
11. Johnson A, **Schmitt EE**, French J, Johnson E. (2022). Uneven but conservative pacing is associated with performance during up and downhill running. *International Journal of Sports Physiology and Performance*.
12. **Schmitt EE**, McNair BD, Polson SM, Cook RF, Bruns DR. (2022). Mechanisms of exercise-induced cardiac remodeling differ between young and aged hearts. *Exercise and Sport Science Reviews*.
13. Yusifov A, Chhatre VE, Koplin EK*, **Schmitt EE**, Woulfe KC, Bruns DR. (2021). Transcriptomic analysis of cardiac gene expression across the life course in male and female mice. *Physiological Reports*.

14. Yusifov A, Chhatre VE, Zumo JM, Cook RF, McNair BD, **Schmitt EE**, Woulfe KC, Bruns DR. (2021). Cardiac response to adrenergic stress differs by sex and across the lifespan. *Geroscience*.
15. Bruns DR, Yusifova M*, Marcello NA*, Green CJ*, Walker WJ*, **Schmitt EE**[#]. (2020). The Peripheral Circadian Clock and Exercise: Lessons from Young and Old Mice. *Journal of Circadian Rhythms*.
16. McNair BD, Marcello NA*, Smith DT, **Schmitt EE**, Bruns DR. (2020). Changes in Muscle Mass and Composition by Exercise and Hypoxia as Assessed by DEXA in Mice. *Medicina*.
17. Brown KD, Waggy ED, Nair S, Robinson TJ, **Schmitt EE**, Bruns DR, Thomas DP. (2020). Sex Differences in Cardiac AMP-Activated Protein Kinase Following Exhaustive Exercise. *Sports Medicine International Open*
18. **Schmitt EE**[#], Johnson EC, Yusifova M*, Bruns DR. (2019). The Renal Molecular Clock: Broken by Aging and Restored by Exercise. *AJP Renal*.
19. Pearson S, Sarkar T, McQueen C, Elswood J, **Schmitt EE**, Wall S, Scribner K, Wyatt G, Barhoumi R, Behbod F, Rijnkels M, Porter W. (2018). ATM-dependent activation of SIM2s regulates homologous recombination and epithelial-mesenchymal transition. *Oncogene*.
20. McQueen CM, **Schmitt EE**[^], Roy Sarkar T, Elswood J, Metz RP, Earnest D, Rijnkels M, Porter WW. (2018). PER2 Regulation of Mammary Gland Branching Morphogenesis. *Development*. ^{^co-first}
21. Morris D, Popp J, Tang L, Gibbs H, **Schmitt EE**, Chaki S, Yeh A, Porter W, Burghardt R, Barhoumi R, Rivera G. (2017). Nck is required for breast carcinoma progression and metastasis. *Molecular Biology of the Cell*.
22. **Schmitt EE**, Barhoumi R, Metz RP, Porter WW. (2017). Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. *Molecular Pharmacology*.
23. **Schmitt EE**, Vellers HL, Porter WW, Lightfoot JT. (2016). Environmental Endocrine Disruptor Affects Voluntary Physical Activity in Mice. *Medicine & Science in Sports & Exercise*.
24. Turner MJ, **Schmitt EE**, Hubbard-Turner T. (2016). Weekly Physical Activity Levels of Older Adults Regularly Using a Fitness Facility. *Journal of Aging Research*.
25. Ferguson DP, Dangott LF, Vellers HL, **Schmitt EE**, Lightfoot JT. (2015). Differential Protein Expression in the Nucleus Accumbens of High and Low Active Mice. *Behavioral Brain Research*.
26. Ferguson DP, **Schmitt EE**, Lightfoot JT. (2013). Vivo-Morpholinos Induced Transient Knockdown of Physical Activity Related Proteins. *PLoS ONE*.
27. Ferguson DP, Dangott LJ, **Schmitt EE**, Vellers HL, Lightfoot JT. (2013). Differential Skeletal Muscle Proteome of High and Low Active mice. *Journal of Applied Physiology*.

Publications Under Review

Book Chapters

1. **Schmitt EE** and Vellers HL. The Routledge Handbook of Sport and Exercise Systems Genetics. Chapter 11: Environmental Factors that May Affect the Genetic Regulation of Activity (2019).

INVITED TALKS

1. "The Role of Exercise in Controlling Central Mediators of Circadian Rhythm" APS, American Physiology Society 2025, Baltimore, MD.
2. "The Aging Mouse as a Model of Nocturia" NISBRE Conference 2024, Washington, DC.
3. "From Bench to Bedside: Using an Animal Model to Better Understand How Circadian Disruption Impacts Human Health" Institute of Translational Health Sciences, Clinical and Translational Research Pathway, WWAMI, 2023 Remote.
4. "Effect of Exercise on Disrupted Circadian Rhythm in Mice" American Chemical Society Northwest Regional Meeting 2023, Bozeman, MT.
5. "Physical Activity as a Novel Tool to Reset the Misaligned Molecular Clock" College of Health Sciences Research Day, 2023. Laramie, WY.
6. "Physical Activity as a Novel Tool to Reset the Misaligned Molecular Clock" Wyoming, INBRE Annual Conference, 2023. Laramie, WY.

7. "Circadian Disruption Impacts Female Fertility". Animal Science Seminar, 2022. University of Wyoming, Laramie, WY.
8. "Exercise to Reset and Strengthen the Molecular Clock" COBRE Neuroscience Seminar Series, 2022. University of Wyoming, Laramie, WY.
9. "Effects of Exercise on Realignment a Disrupted Molecular Clock" Society for Research on Biological Rhythms, 2022. Data-Blitz Presentation. Amelia Island, FL.
10. "Physical Activity as a Novel Tool to Reset the Misaligned Molecular Clock" Wyoming, INBRE Annual Conference, 2022. Laramie, WY.
11. "Socially Distanced Science: Relying on the Mouse Model to Study Nocturia" College of Health Sciences Research Day, 2021. Remote.
12. "Aging and the Molecular Clock" The Jackson Laboratory, Aging Interest Group Meeting, 2019. Remote.
13. "Effects of Physical Activity and the Molecular Clock on Polyaromatic Hydrocarbon Metabolism" University of Utah, 2019. Salt Lake City, UT.
14. "Effects of Physical Activity and the Molecular Clock on Polyaromatic Hydrocarbon Metabolism" Molecular Biology Seminar Series, 2018. Laramie, WY.
15. "Back to the Bench: A Basic Science Approach to Studying Human Health" Division of Kinesiology & Health Seminar, 2018. Laramie, WY.
16. "Effects of Physical Activity and the Molecular Clock on Polyaromatic Hydrocarbon Metabolism" Toxicology Seminar Series, 2018. College Station, TX.
17. "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland" Three Minute Thesis, CVM Research Symposium, 2018. College Station, TX.
18. "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland" Gordon Conference: Cellular and Molecular Mechanisms of Toxicity, 2017. Andover, NH.
19. "Endocrine Disruption and the Regulation of Physical Activity in Mice" Department Seminar, Exercise Physiology, 2015. College Station, TX.

ABSTRACTS AND POSTER PRESENTATIONS

*Student Author, #Emily Schmitt as the Corresponding Author

1. Negaard S*, Clutter G*, **Schmitt EE#**. Identifying Upregulated Molecular Mediators via RNA-Sequencing in Exercise-Induced Entrainment of Circadian Rhythms. Rocky Mountain ACSM, 2025. Colorado Springs, CO. Negaard = 3rd place undergraduate poster winner.
2. Davidson JS*, Forbis E*, Wyatt CR*, **Schmitt EE#**. Voluntary Exercise Enhances Circadian Rhythms and Clock Gene Expression in Mice. Rocky Mountain ACSM, 2025. Colorado Springs, CO. Davidson = 1st place undergraduate poster winner.
3. Forbis E*, Davison J*, Wyatt C*, **Schmitt EE#**. The Effects of Voluntary Exercise on the Circadian Clock in Aged and Young Female Mice. Rocky Mountain ACSM, 2025. Colorado Springs, CO. Forbis = undergraduate poster winner.
4. Wyatt C*, Engelke M*, Davidson J*, Forbis E*, Todd WD, **Schmitt EE#**. Tracking Circadian Rhythm: Core Temperature vs Running Wheels. Rocky Mountain ACSM, 2025. Colorado Springs, CO.
5. Pitha K*, Chargui H, Bruch B*, Negaard S*, Engelke M*, Roberts B, **Schmitt EE#**. Chrono-Exercise Consolidates Sleep. Rocky Mountain ACSM, 2025. Colorado Springs, CO.
6. Hernandez G*, Wyatt C*, Todd WD, Zhang Z, **Schmitt EE#**. Tick-Tock, Exercise O'Clock: Investigating the Role of Exercise in Restoring SCN Function and Circadian Health. Rocky Mountain ACSM, 2025. Colorado Spring, CO.
7. **Schmitt EE#**, Wyatt CR*, Todd WD. The Role of Exercise in Controlling Central Mediators of Circadian Rhythm. NISBRE Conference 2024, Washington, DC.
8. **Schmitt EE#**, Nelson CF*, Wyatt CR*, Todd WD. Long-Term Exercise Protects Against Circadian Disruption and Facilitates Re-Entrainment in Male but not Female Mice. Society for Research on Biological Rhythms, 2024. Puerto Rico.

9. Sinzu-Prieto D, Pru C, Lydon JP, **Schmitt EE**, Pru JK. An Essential Role for Casein Kinase 1 Delta and Epsilon in Endometrial Development and Pregnancy. Society for Reproductive Investigation. Annual Meeting, 2024, Vancouver, BC, Canada.
10. Pereira VM, Pradhanang S, Chenchar AM, Polson S, Burns DR, **Schmitt EE**, Bashir R, Sawan SA, Nair S. Platycodon Grandifloras Reduces Weight Gain and Attenuates Hepatic Steatosis in a Diet-Induced Mouse Model of Obesity. American Society for Pharmacology and Experimental Therapeutics. Annual Meeting, 2023, St. Louis, Missouri.
11. Sapuppo AM*, Earhart KM*, Schuldies AL*, **Schmitt EE**#. Effects of Exercise on Circadian Rhythm Disruption and Reproduction. University of Wyoming Undergraduate Research Day, 2023. Laramie, WY.
12. Nelson CF*, Todd WD, Wyatt CR*, **Schmitt EE**#. Lifelong Exercise to Protect Against a Broken Clock. College of Health Sciences Research Day, 2023. Laramie, WY.
13. Sapuppo AM*, Earhart KM*, Schuldies AL*, **Schmitt EE**#. Effects of Exercise on Circadian Rhythm Disruption and Reproduction. Rocky Mountain ACSM, 2023. Colorado Springs, CO. Undergrad poster winner.
14. Nelson CF*, Todd WD, Wyatt CR*, **Schmitt EE**#. Lifelong Exercise to Protect Against a Broken Clock. Rocky Mountain ACSM, 2023. Colorado Springs, CO.
15. Earhart KM*, Britz S*, Pru JK, **Schmitt EE**#. Circadian Disruption Impacts Female Reproduction. Rocky Mountain ACSM, 2023. Colorado Springs, CO.
16. Pereira MV, Pradhanang S, Chenchar AM, Polson S, Bruns DB, **Schmitt EE**, Nair S. Platycodon Grandifloras Reduces Weight Gain and Attenuates Hepatic Steatosis in a Diet-Induced Mouse Model of Obesity. American Society for Pharmacology and Experimental Therapeutics, 2023. Philadelphia, PA.
17. LeMaster B*, Cloninger J*, Bedford N, Bruns DR, **Schmitt EE**#. Exercise as a Possible Treatment for Nocturia via Circadian Realignment. Western Medical Conference, 2023. Carmel, CA.
18. Britz S, Earhart K*, Pru J, **Schmitt EE**#. Circadian Disruption Impacts Female Fertility. Western Medical Conference, 2023. Carmel, CA.
19. **Schmitt EE**#, Sholten ET*, McCoy E*, Marcello N*, Todd WD. Effects of Exercise on Realigning a Disrupted Molecular Clock. Society for Research on Biological Rhythms, 2022. Amelia Island, FL.
20. O'Connor A*, Bruns DR, Vaccaro L, Bobadilla AC, **Schmitt EE**#. Acclimation to Moderate Altitude Induces Physiological Adaptations in Mice. WY-INBRE Conference and Undergraduate Research & Inquiry, 2022. Laramie, WY.
21. Scholten ET*, McCoy E*, **Schmitt EE**#. Effects of Exercise on Realigning a Disrupted Molecular Clock. Spokane WWAMI Research Day, 2021. Spokane, WA.
22. McCoy E*, Scholten ET*, **Schmitt EE**#. Effects of Exercise on Realigning a Disrupted Molecular Clock. INBRE undergraduate research forum, 2021. Laramie, WY.
23. Nelson RN*, Koplin EK*, Polson SP, Bruns DP, **Schmitt EE**#. The Use of High Frequency Ultrasound for *In-Vivo* Pregnancy to Monitor and Assess Fetal Development After Endocrine Disruption. Wyoming WWAMI Research Day, 2021. Laramie, WY.
24. Bruns DB, DeHoff MA, Yusifov A, Polson, SM, Cook, RF, **Schmitt EE**, Woulfe, KC. Exercise During the Juvenile Period Protects Against Cardiac Dysfunction Later in Life. Gerontological Society of America Annual Conference, 2021. Remote.
25. Blechschmid TH, Hartung CM, **Schmitt EE**, Bruns DR, Carrico CP, Johnson EC. Mechanisms of Nocturia in Older Adults and the Potential for Exercise to Alleviate them. Rocky Mountain ACSM, 2021. Remote.
26. Yusifova M, Marcello NA*, Polson SM, Cook RF, **Schmitt EE**#, Bruns DR. Genetic Deletion of BMAL1 in Cardiac Myocytes Disrupts the Cardiac Molecular Clock. Rocky Mountain ACSM, 2021. Remote.
27. Fullerton ZS, McNair BD, Marcello NA*, Sewell TE, **Schmitt EE**, Bruns DR. Exposure to High Altitude Promotes Muscle Loss that is not Rescued by Metformin. College of Health Sciences Research Day, 2021. Remote.
28. DeHoff MA, Yusifov A, Cook RF, **Schmitt EE**, Nair S, Smith DT, Bruns DR. Exercise During Childhood Protects Against Cardiac Dysfunction Later in Life. Rocky Mountain ACSM, 2021. Remote.
29. Graves H*, Culnan BM*, Bruns DR, **Schmitt EE**#. Treadmill Training Improves Aerobic Capacity in Aged Male Mice Compared to Voluntary Wheel Running. Rocky Mountain ACSM, 2021. Remote.

30. Koplin EK*, Bruns DR, **Schmitt EE**[#]. Changes in Voluntary Wheel Running During Stages of Pregnancy in the Mouse. Rocky Mountain ACSM, 2021. Remote.
31. Marcello NA*, Bruns DR, **Schmitt EE**[#]. Disruption of Circadian Rhythm by Simulated Jet Lag in Mice. Rocky Mountain ACSM, 2021. Remote.
32. Yusifov A, Chhatre V, Koplin EK*, **Schmitt EE**, Woulfe KC, Bruns DR. Transcriptomic Analysis of Cardiac Gene Expression Across the Life-Course in Male and Female Mice. Experimental Biology, 2021. Remote.
33. Shorthill SK, Cook RF, McNair BD, Polson SM, **Schmitt EE**, Bruns DR. Voluntary wheel running at high, moderate, and low altitudes differs in male versus female mice. Rocky Mountain ACSM, 2021. Remote.
34. **Schmitt EE**[#], Bruns DR. Treadmill Training Improves Aerobic Capacity in Aged Male Mice Compared to Voluntary Wheel Running, Gerontological Society of America National Meeting, 2021. Remote.
35. **Schmitt EE**[#], Bruns DR. Circadian Interest Group. Aging, the Molecular Clock, and Exercise Podium Presentation. Gerontological Society of America National Meeting, 2019. Austin, TX.
36. Hibbs C*, Yusifova M, McNair BD, Bruns DR, **Schmitt EE**[#]. Circadian Patterns of Free Wheel Running in Young and Old Mice. Gerontological Society of America Annual Conference, 2019. Austin, TX.
37. Ostler IW, Cook R, McNair BD, **Schmitt EE**, Coste S, Bruns DR. The Impact of Voluntary Exercise on Cardiac Remodeling in Young and Old Mice. WY-INBRE Conference and Undergraduate Research & Inquiry, 2019. Laramie, WY.
38. **Schmitt EE**[#], Johnson EC, Loseke J, Zamora M, Hibbs C*, Smith D. Gene Expression of Peripheral Blood Mononuclear Cells During Heat Acclimation in Firefighters. High Plains Intermountain Center Conference, 2019. Seattle, WA.
39. **Schmitt EE**, Barhoumi R, McQueen C, Porter WW. Circadian Regulation of AhR Induced CYP1A1 Gene Expression is Dependent Upon p53 Binding Activity. Society of Toxicology, 2018. San Antonio, TX.
40. **Schmitt EE**, Barhoumi R, Metz RP, Porter WW. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland Annual Toxicology Regulatory Science Symposium, 2017. College Station, TX.
41. **Schmitt EE**, Barhoumi R, Metz RP, Porter WW. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. CTEHR Clocks Symposium, Tic Tox: Circadian Rhythms and the Environment, 2016. College Station, TX.
42. **Schmitt EE**, Barhoumi R, Metz RP, Porter WW. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. TAMU Post-Doctoral research symposium, 2016. College Station, TX.
43. **Schmitt EE**, Barhoumi R, Metz RP, Porter WW. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. The Aryl Hydrocarbon Receptor as a Central Mediator of Health and Disease Conference, 2016. Rochester, NY.
44. **Schmitt EE**, Porter WW, Lightfoot JT. Endocrine-Disruption and the Regulation of Physical Activity and Mammary Gland Development in Mice. American College of Sports Medicine, 2015. San Diego, CA.
45. **Schmitt EE**, Vellers HL, Irwin CD, Lightfoot JT. Endocrine-disruption and Regulation of Physical Activity in Mice. American College of Sports Medicine, 2014. Orlando, FL.
46. **Schmitt EE**, Porter WW, Lightfoot JT. Endocrine-Disruption and the Regulation of Physical Activity and Mammary Gland Development in Mice. Breast Cancer Retreat, 2014. Lake Conroe, TX.
47. **Schmitt EE**, Ferguson DP, Lightfoot JT. Potential Wash-out of Vmat2 Gene Silencing by Exercise Exposure. American College of Sports Medicine, 2012. San Francisco, CA.
48. Downey PT, Ballard TM, **Schmitt EE**, Nebus PL. Cancer Rehabilitation: Observed Trends of Cancer Survivors' Physical Activity Levels Prior to Diagnosis and When Starting the Strides to Strength Group Exercise Program. Medicine & Science in Sports & Exercise. American College of Sports Medicine, 2012. San Francisco, CA.
49. **Schmitt EE**, Ferguson DP, Lightfoot JT. Knockdown of Vmat2 in Mouse Right Striatum and Physical Activity. Experimental Biology, 2012. San Diego, CA.
50. **Schmitt EE**, Hubbard TJ, Turner M. Fitness Facility Use Does Not Increase Step Activity in Independent Living Older Adults. American College of Sports Medicine, 2010. Baltimore, MD.

51. Ferguson DP, Moore-Harrison TL, Bowen RS, Hall KJ, **Schmitt EE**, Hamilton AT, Mosher A, Lightfoot JT. Heart Rate and Core Temperature Responses of Pit Crew Athletes During Elite Automobile Races. American College of Sports Medicine, 2009. Seattle, WA.
52. **Schmitt EE**, Pyden C, Miller P. Relationships Between Treadmill Running Performance and Preference and Tolerance of Exercise Intensity. Southeast American College of Sports Medicine, 2007. Charlotte, NC.

STUDENT RESEARCH SUPERVISION

Graduate Student Advisees, Chair

1. Sherry Negaard, MS Kinesiology and Health, 2025-
2. Maddie Davis, MS Kinesiology and Health, 2024-2025
3. Karla Pitha, MS Kinesiology and Health, 2024-
4. Chris Folsom, MS Kinesiology and Health, 2023-2025
5. Shay Nelson, MS Kinesiology and Health, 2023-2024
6. Nathan Hunt, MS Kinesiology and Health, 2023-2024
7. Cole Nelson, MS Kinesiology and Health, 2022-2024
8. Kylie Earhart, MS Kinesiology and Health, 2022-2023
9. Samantha Britz, MD WWAMI Medical Education, 2025
10. Justin Colinger, MD WWAMI Medical Education, 2025
11. Bensen LeMaster, MD WWAMI Medical Education, 2025
12. Mackenzie Amrine, MS Kinesiology and Health, 2021-2022
13. Nicholas Marcello, MS Kinesiology and Health, 2020-2022
14. Eva Koplin, MS Kinesiology and Health, 2020-2022
15. Evan Scholten, MD WWAMI Medical Education, 2024
16. Rikki Nelson, MD WWAMI Medical Education, 2024
17. Carly Hibbs, MS Kinesiology and Health, 2018-

Undergraduate Student Advisees (Research)

1. Rece Ziegler, BS Kinesiology & Health, 2025-
2. Macei Engelke, BS Kinesiology & Health, 2025-
3. Rilee Hauber, BS Kinesiology & Health, 2024-2025
4. Grant Hilton, BS Kinesiology & Health, 2024
5. Ethan Forbis, BS Physiology, 2024-
6. Jarom Davison, BS Physiology, 2024-2025
7. Emma Crane, BS Kinesiology and Health, 2024-2025
8. Bryn Bruch, BS Kinesiology and Health, 2024-2025
9. Ashton Walther, BS Kinesiology and Health, 2024-2025
10. Gustavo Hernandez, BS Physiology, INBRE, WY Space Grant, and WY Scholars Fellow, 2024-
11. Maddie Kern, BS Kinesiology and Health, 2024-2025
12. Codi Dooley, BS Kinesiology and Health, 2024-2025
13. Sahla Miller, BS Psychology, 2023-2024
14. Amber Hight, BS Kinesiology and Health, 2024-2024
15. Megan Olinger, BS Kinesiology and Health, 2023-2024
16. Laine Allison, BS Kinesiology and Health, 2023-2024
17. Sherry Negaard, BS Kinesiology and Health, 2023-
18. Hanna Crockett, BS Kinesiology and Health, 2023-2024
19. Gabby Clutter, BS Kinesiology and Health, 2023-2024
20. Alyssa Bedard, BS Kinesiology and Health, 2023-2024
21. Morgan Jaquez, BS Kinesiology and Health, 2023-2023
22. Karla Pitha, BS Kinesiology and Health, 2023-2024
23. Cole Wyatt, BS Microbiology, INBRE Undergraduate Fellow, 2023-

24. Kelcey Anderson, BS Kinesiology and Health, 2023-2023
25. Joshua Posten, BS Kinesiology and Health, 2022-2023
26. Shiqi (Abby) Deng, SUS Exchange Student, 2022-2023
27. Shay Nelson, BS Kinesiology and Health, 2022-2023
28. Aubri Schuldies, BS Kinesiology and Health, 2022-2023
29. Nathan Hunt, BS Kinesiology and Health, 2022-2023
30. Connor Kasarda, BS Computer Science, 2022-2023
31. Brooklyn Prince, BS Molecular Biology, 2022-2023
32. Aedian O'Connor, BS Physiology, INBRE Undergraduate Fellow, 2022-2023
33. Ashleen Sapuppo, BS Physiology, INBRE Undergraduate Fellow 2022-2023
34. Dallin Jones, BS Kinesiology and Health, 2021-2022
35. Michael Jace Smith, BS Kinesiology and Health, 2021-2022
36. Kendahl Coy, BS Kinesiology and Health, 2021-2022
37. Brady Arnoldi, BS Kinesiology and Health, 2021-2022
38. Tara Kortlever, BS Kinesiology and Health, 2021-2022
39. Chad Wiebelhaus, BS Kinesiology and Health, 2021-2022
40. Justyn Christensen, BS Kinesiology and Health, 2021-2022
41. Gabriel Cruz, BS Kinesiology and Health, 2021-2022
42. Marissa Arnold, BS Kinesiology and Health, 2021-2022
43. Hunter Graves, BS Kinesiology and Health, 2020-2021
44. Brienna Culnan, BS Kinesiology and Health, 2020-2021
45. Taylor Devries, BS Kinesiology and Health, 2020-2021
46. Elijah McCoy, BS Kinesiology and Health, INBRE Undergraduate fellow 2020-2021
47. Michelle Nguyen, BS Kinesiology and Health, 2020-2022
48. Faith Friend, BS Kinesiology and Health, 2020-2022
49. Sydney Beijer, BS Kinesiology and Health, 2020-2022
50. Kylie Earhart, BS Kinesiology and Health, 2022
51. Michael Doyle, BS Kinesiology and Health, 2019-2020
52. Connor Assay, BS Kinesiology and Health, 2020-2021
53. Brianna Specht, BS Kinesiology and Health, 2020-2022
54. Krik Unland, BS Kinesiology and Health, 2019-2020
55. Mackenzie Bennett, BS Kinesiology and Health, 2019-2020
56. Aaron Koehler, BS Kinesiology and Health, 2020
57. Bryce Benton, BS Kinesiology and Health, 2019-2020
58. Riley Patterson, BS Physiology, 2019-2020
59. Kelsey Faircloth, BS Kinesiology and Health, 2019-2020
60. Joshua Willoughby, BS Kinesiology and Health, 2019-2020
61. Dean Hatzenbiler, BS Kinesiology and Health, 2019-2020
62. Mackenzie Bennett, BS Kinesiology and Health, 2018-2019
63. Mackenzie Amrine, BS Kinesiology and Health, 2019-2020
64. Logan Dahill, BS Kinesiology and Health, 2019-2020
65. Dillon Clift, BS Kinesiology and Health, 2019-2020
66. Andrew Monroe, BS Kinesiology and Health, 2019-2020
67. Uriah Gracia-Salinas, BS Kinesiology and Health, 2019-2020
68. Hunter Sylte, BS Kinesiology and Health, 2019-2020
69. Nicholas Marcello, BS Kinesiology and Health, 2018-2020
70. Hailey Wilkinson, BS Kinesiology and Health, 2018-2019
71. Brenna McGuinness, BS Kinesiology and Health, 2018-2019
72. Rachel Goff, BS Kinesiology and Health, 2018-2019

GRADUATE THESIS AND DISSERTATION COMMITTEE MEMBERSHIPS

1. Hayfa Chargui, MS Zoology and Physiology, 2024-
2. Karissa Kaiser, MS Zoology and Physiology, 2024-
3. Erik Daniel Gwaltney, PhD Neuroscience, 2023-
4. Kristen Maggiore, MS Kinesiology and Health, 2023-2025
5. Quiana Jeffs, PhD Neuroscience, 2022-
6. Jace Smith, MS Kinesiology and Health, 2022-2024
7. Hannah Hagen, MS Kinesiology and Health, 2023-2024
8. Elizabeth Straight, MS Kinesiology and Health, 2022-2024
9. Bailee Smith, MS Kinesiology and Health, 2022-2024
10. Jimmy Bautista, MS Kinesiology and Health, 2022-2024
11. Christopher Mancuso, PhD Clinical Psychology, 2022-
12. Kevin Miller, PhD Biomedical Sciences, 2021-2024
13. Dania Sinzu-Prieto, MS Animal Science, 2022-2024
14. Vitoria Mattos Pereira, PhD Biomedical Sciences, 2021-2025
15. Aykhan Yusifov, PhD Biomedical Sciences, 2019-2022
16. Aaron Koehler, MS Kinesiology and Health 2020-2022
17. Josh Kuehmichel, Co-Chair, MS Kinesiology and Health, 2020-2022
18. Elizabeth Herzl, MS Nutrition, 2020-2022
19. Zachary Fullerton, MS Kinesiology and Health, 2020-2022
20. Tyler Blechschmid, MS Kinesiology and Health, 2019-2021
21. Andrew Johnson, MS Kinesiology and Health, 2019-2021
22. Mackenzie DeHoff, MS Kinesiology and Health, 2019-2021
23. Mushu Yusifova, Co-Chair, MS Kinesiology and Health, 2019-2021
24. Aaron Koehler, Co-Chair, MS Kinesiology and Health, 2019-2021
25. Ben McNair, MS Kinesiology and Health, 2018-2020
26. Josh Loseke, Co-Chair, MS Kinesiology and Health, 2018-2020

TEACHING RESPONSIBILITIES

Semester and Year	Course Prefix and Number	Course Title	Enrollment	Credits	On-Campus/ Distance	Contribution if Team Taught
Fall 2025	KIN 3038	Behavior and Performance in Exercise and Sport	49	3	On Campus	n/a
Fall 2025	KIN 5041	Advanced Exercise Physiology	7	3	On Campus	n/a
Summer 2025	KIN 3021	Physiology of Exercise	16	3	Distance	n/a
Spring 2025	KIN 3021	Physiology of Exercise	24	3	On Campus	n/a
Fall 2024	HM 6730	Cancer, Hormones, and Blood	20	4	On Campus	n/a
Spring 2024	KIN 3021	Physiology of Exercise	24	3	On Campus	n/a
Fall 2023	HM 6730	Cancer, Hormones, and Blood	20	4	On Campus	n/a
Summer 2023	KIN 3021	Physiology of Exercise	28	3	Distance	n/a
Spring 2023	KIN 3021	Physiology of Exercise	26	3	On Campus	n/a

Fall 2022	HM 6730	Cancer, Hormones, and Blood	20	4	On Campus	n/a
Spring 2022	HM 6640	Blood and Cancer	20	4	On Campus	n/a
Spring 2022	HM 6650	Energetics and Homeostasis	20	4	On Campus	n/a
Fall 2021	KIN 5041-01	Advanced Exercise Physiology	5	3	On Campus	n/a
Fall 2021	KIN 3021	Physiology of Exercise	68	3	On Campus	n/a
Fall 2021	KIN 3022	Physiology of Exercise Lab	68	1	On Campus	n/a
Spring 2021	HM 6640	Blood and Cancer	20	4	On Campus	n/a
Spring 2021	HM 6650	Energetics and Homeostasis	20	4	On Campus	n/a
Fall 2020	KIN 5586-02	Advanced Exercise Physiology	12	3	On Campus	n/a
Fall 2020	KIN 3021	Physiology of Exercise	78	3	On Campus	n/a
Fall 2020	KIN 3022	Physiology of Exercise Lab	74	1	On Campus	n/a
Spring 2020	HM 6640	Blood and Cancer	20	4	On Campus	n/a
Spring 2020	HM 6650	Energetics and Homeostasis	20	4	On Campus	n/a
Fall 2019	KIN 5586-02	Advanced Exercise Physiology	10	3	On Campus	n/a
Fall 2019	KIN 3021	Physiology of Exercise	76	3	On Campus	n/a
Fall 2019	KIN 3022	Physiology of Exercise Lab	70	1	On Campus	n/a
Spring 2019	HM 6640	Blood and Cancer	20	4	On Campus	n/a
Spring 2019	HM 6650	Energetics and Homeostasis	20	4	On Campus	n/a
Fall 2018	KIN 3021	Physiology of Exercise	73	3	On Campus	n/a
Fall 2018	KIN 3022	Physiology of Exercise Lab	70	1	On Campus	n/a

GUEST LECTURES

1. FYS 2020-2023: Lecture on my schooling and career experiences.
2. KIN 5041, Dr. Johnson's Advanced Environmental Physiology class: Lecture on Circadian Rhythms and the Environment. I also did another lecture on Exercise in Polluted Environments.
3. KIN 2050, Dr. Alisa Siceloff's Socio-Culture Aspects of Physical Activity class: Lecture on Circadian Rhythms and Timing of Exercise as Entrainment.
4. HELD 5586-43, Lacey Gaechter's Environmental Health class. Lecture on Introduction to Toxicology.

5. ZOO 5735, Dr. William ‘Trey’ Todd’s Advanced Topics in Physiology: Circadian Physiology. Lecture on Circadian Rhythms and Timing of Exercise as Entrainment.

ADVISING

Year	Number of Undergraduate Advisees	Number of Graduate Advisees
2025	4	3
2024	3	3
2023	22	4
2022	0	3
2021	8	3
2020	16	3
2019	14	1
2018	19	1

SERVICE TO THE UNIVERSITY

University Level

1. 2020-present, Radiation Safety Committee
2. 2022, Zoology & Physiology/Animal Science R1 Faculty Search Committee

College of Health Sciences

1. 2020-2023, Scholarship Committee
2. 2019-2021, Interprofessional Committee Member

Division of Kinesiology and Health and WWAMI

1. 2025, Co-Chair of Graduate Committee
2. 2025, Chair of Cluster Search for Exercise Physiology & Public Health (4 positions)
3. 2025, Chair of Search Committee for Assistant Professor - Strength Training, Conditioning, Human Performance (CSCS position)
4. 2022, Hiring Committee for Staff/front office position
5. 2019-2025, Wyoming WWAMI Coordinator for Student Research
6. 2019-2025, PEK Faculty Representative
7. 2019-present, Student Bowl Coordinator and Wyoming Representative for Rocky Mountain ACSM
8. 2018-present, Graduate Recruitment Initiative (GRI) committee. Planning of GRI weekend (budget + activities)
9. 2020, Hiring Committee for Anatomy position/WWAMI

MEMBERSHIP IN PROFESSIONAL SOCIETIES

1. 2022-present, Society for the Study of Reproduction
2. 2021-present, Society for Research on Biology Rhythms
3. 2018-present, American Heart Association Member
4. 2007-present, American College of Sports Medicine

SERVICE TO THE DISCIPLINE

1. 2024-present, American College of Sports Medicine, Co-Chair of Physiological & Biological Mechanisms Underlying Health & Performance Special Interest Group
2. 2023 University of Wyoming, NASA, Graduate Fellowship Grant Reviewer
3. 2019-present, Rocky Mountain American College of Sports Medicine Member and Wyoming Faculty Representative

4. 2019-present, Mountain West IDeA Clinical and Translational Research – Infrastructure Network (CTR-IN) Grant Reviewer
5. 2019-2021, Gerontological Society of America abstract reviewer
6. 2018-present, Manuscript Reviewer for Current Biology, PloS One, Medicine & Science in Sport & Exercise, Journal of Applied Physiology, Journal of Biological Rhythms

PROFESSIONAL DEVELOPMENT

1. 2020, Cares Teaching
2. 2020, ECTL webinar in Facilitating Synchronous Discussions
3. 2018, WWAMI faculty development session on small group case-based learning

COMMUNITY SERVICE/OUTREACH

1. 2019-present, Walk with a Doc, Laramie, WY
2. 2021, Iverson Hospital, Cardiac Rehab, invited community speaker
3. 2019-2022, NASI Presentation on using mice as clinical models
4. 2019, SUS Presentation on Circadian Rhythms
5. 2019, Health Sciences High School student presentation on using mice as clinical models