

Danielle (Nellie) Reuland Bruns, PhD
Curriculum Vitae

CONTACT INFORMATION

Danielle R. Bruns, PhD
Associate Professor
Kinesiology & Health, University of Wyoming

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EDUCATION AND TRAINING

2013	PhD	Human Bioenergetics Colorado State University- Fort Collins, CO Co-Advisors: Karyn Hamilton, PhD and Benjamin Miller, PhD
2010	MS	Health and Exercise Science Colorado State University- Fort Collins, CO Advisor: Karyn Hamilton, PhD
2008	BS	Exercise Science Linfield College-McMinnville, OR

ACADEMIC POSITIONS

2023-	Associate Professor Kinesiology & Health University of Wyoming, Laramie, WY
2018-2023	Assistant Professor Kinesiology & Health University of Wyoming, Laramie, WY
2018-	Adjunct Assistant Professor WWAMI; Rehabilitation Medicine, School of Medicine University of Washington, Seattle, WA
2022-	Adjunct Assistant Professor Zoology & Physiology University of Wyoming
2014-2018	Postdoctoral Fellow Division of Cardiology, Department of Medicine University of Colorado-Denver Anschutz Medical Campus, Aurora, CO
2016-2018	Adjunct Faculty Department of Biology Metropolitan State University-Denver
2009-2013	Graduate Research Assistant Department of Health & Exercise Science Colorado State University, Fort Collins, CO
2008-2010	Graduate Teaching Assistant Department of Health & Exercise Science Colorado State University, Fort Collins, CO

HONORS AND AWARDS

- 2023 University of Wyoming Early-Career Graduate Faculty Mentor Award
- 2022 Center for Women's Health Research National Conference Travel Award
- 2021 American Aging Association Annual Meeting Junior Faculty Travel Award
- 2021 College of Health Sciences New Investigator Award
- 2021 College of Health Sciences Faculty Travel Award
- 2020 WWAMI Independent Investigative Inquiry Outstanding Mentor Award
- 2018 American Heart Association Scientific Sessions: BCVS Abstract Travel Award
- 2018 Center for Women's Health Research National Conference Poster Award
- 2018 NIA Summer Training Course on Biology of Aging
- 2018 UC-Denver Postdoc Travel Award
- 2016 NIH/NIA Butler-Williams Scholar
- 2016 American Physiological Society: Inflammation, Immunity and Cardiovascular Disease Travel Award
- 2016 Center for Women's Health Research National Conference Poster Award
- 2016 American Heart Association BCVS New Investigator Travel Award
- 2012 Robert W. Gotshall Graduate Scholarship Recipient: Colorado State University
- 2011 1st place poster presentation at Rocky Mountain American College of Sports Medicine

FUNDED GRANTS AND CONTRACTS

Funded Grants as PI

1. NIH/NIA. K01 Career Development Award. 3/1/2019-11/30/2023
"Therapeutic activation of AMPK for the aging right heart"
2. NIH/NIA/OD. K01, Administrative Supplement 8/22/2022-11/30/2023
"Therapeutic activation of AMPK for the aging right heart"
3. Wyoming COBRE Sensory Biology Development Proposal 10/1/2022-7/31/2024
"The heart as a novel regulator of circadian rhythm"
4. Wyoming NIH INBRE Thematic Research Project 5/1/2020-4/30/2022
"Identification of juvenile factors to treat age-related declines in cardiac adrenergic reserve"
5. Montana INBRE Tech Access Grant 12/1/2021-6/1/2022
"Quantification of sex hormones in male and female mice across the life-course"
6. 10x Genomics + University of Wyoming Grant Program
"Single cell RNAseq to identify right ventricular specific gene expression"
7. Wyoming NIH INBRE Graduate Research Fellowship 8/24/2020-8/23/2022
"Activation of AMPK for the aging right heart"
8. Nathan Shock Center Pilot- Oklahoma Medical Research Foundation 2/1/2021-1/31/2022
"Mechanisms of cardioprotection by metformin in the aging right heart"
9. Wyoming NASA 6/1/2019-5/31/2021
"Prevention of space flight-induced muscle loss by the anti-diabetes drug metformin"
10. Nathan Shock Center Pilot/Jr Faculty Award 7/1/2019-6/30/2020
"Heart failure across the life-course: a proteomic approach to identify juvenile factors to protect the aging heart"
11. UW- College of Health Sciences Faculty Development Award 3/31/2019-5/31/2020
"From pediatrics to geriatrics: mechanisms of heart failure across the life-course"
12. Wyoming INBRE Sequencing and Informatics Grant
"Mechanisms of age-specific cardiac remodeling: using RNA-seq to understand pediatric and geriatric heart failure"

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| 13. American Federation for Aging Research
(returned upon award of American Heart Association Postdoctoral Fellowship)
"AMP-activated protein kinase as a therapeutic target to improve hypoxia-related cardiac dysfunction in aging" | 12/31/2016-12/31/2017 |
| 14. American Heart Association. Southwest Affiliate Postdoctoral Fellowship
"Hypobaric hypoxia-induced epigenetic changes of the cardiac fibroblast" | 1/1/2017-8/15/2018 |
| 15. American College of Sports Medicine Foundation Predoctoral Grant
"Selective translation of mitochondrial proteins during energetic stress" | 6/1/2012-6/30/2013 |

Funded Grants as Co-PI

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|---|---|-------------------------------|
| 1. NIH/NICHHD R21
"PGRMC proteins as biomarkers of fertility and overall health status" | Pru (PI), Bruns and Schmitt (Co-I) | 9/11/2023-6/30/2025 |
| 2. Wyoming INBRE Administrative Supplement
Team Science Development Project- "Mechanisms of nocturia in the aging mouse" | Bedford, Bruns, Schmitt (Co-PI) | 9/2/2023-4/30/2024 |
| 3. IDeA National Resource for Quantitative Proteomics Voucher
"The cardiac molecular clock as a novel driver of circadian rhythm" | Schmitt and Bruns (Co-I) | 7/1/2022/11/1/2022 |
| 4. Wyoming INBRE Community College-UW Grant
"Myocardial protein citrullination in sex-specific cardiac aging" | Bruns, Cherrington, Teule-Finley (Co-I) | 5/1/2022-4/30/2024 |
| 5. Regional Alliance of INBRE Networks Collaborative Research
"Harnessing deep-diving seal cardioprotective factors as therapy for myocardial ischemia-reperfusion injury" | Hindle, Chase, Bruns (Co-I) | 5/1/2021-4/30/2022 |
| 6. Wyoming INBRE Community College-UW Grant
"Animal and computational models for cardiac dysfunction between the right and left ventricles" | Chew, Mousaviraad, Bruns (Co-I) | 5/1/2020-4/30/2022 |
| 7. College of Health Sciences Faculty Grant in Aid
"High Intensity Interval Training Effects on Arginine Vasopressin Circadian Rhythm in Nocturia Patients" | Schmitt, Johnson, Bruns (Co-PI) | 6/1/2020-5/31/2021
\$3,000 |
| 8. INBRE SPREM
"Echocardiography of modeling and experimental studies for biomechanics of cardiovascular stiffness" | Bruns, Chew, Mousaviraad (Co-I) | 1/23/2020-4/30/2020 |
| 9. Jackson Aging Center Pilot Award
"Linking cardiac aging with biological clock activity" | Schmitt and Bruns (Co-PI) | |

Student Grants

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| 1. Wyoming INBRE Undergraduate Research Fellowship
"Mechanistic variations between the right and left ventricles to understand cardiac aging" | Thornburg, Josh. Role: Mentor | 5/15/2023-8/15/2023 |
| 2. Wyoming INBRE Undergraduate Research Fellowship
"The impact of deletion of cardiac AMPK on right and left ventricular function" | Fontana, Kevin. Role: Mentor | 5/15/2023-8/15/2023 |
| 3. Wyoming Research Scholars Program
"Metformin to improve right ventricular function in diabetic cardiomyopathy" | Faqeri, Sahar. Role: Mentor | 6/1/2023/5/31/2024 |
| 4. RMACSM Student Research Grant
"Reverse remodeling in pulmonary right heart failure" | Matthews, Julian. Role: Mentor | 1/1/2023-5/18/2023 |
| 5. Wyoming INBRE Undergraduate Research Fellowship
"The requirement of cardiac AMPK for cardioprotection by metformin in the right ventricle" | Keelin, Celeste. Role: Mentor | 10/10/2022-5/16/2023 |
| 6. Wyoming INBRE Undergraduate Research Fellowship
"HIF-1 as a deep diving seal-derived factor to protect against cardiac ischemia-reperfusion injury" | Mehl, Emma. Role: Mentor | 6/6/2022-7/30/2022 |
| 7. American Heart Association Predoctoral Fellowship
"AMPK activation as a novel anti-fibrotic therapy in right heart failure" | McNair, Ben. Role: Mentor | 1/1/2022-12/31/2023 |
| 8. RMACSM Student Research Grant
"Exercise in childhood for enhanced later in life cardioprotection" | Yusifov, Aykhan. Role: Mentor | 5/1/2021- 4/30/2022 |

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| 9. | Wyoming INBRE Undergraduate Research Fellowship | Borders, Megan. | Role: Mentor | 8/23/2021-5/14/2022 |
| | "Exercise during childhood protects against cardiac dysfunction later in life" | | | |
| 10. | RMACSM Student Research Grant | Hughes, Courtney. | Role: Mentor | 1/1/2022-5/14/2022 |
| | "Exercise as medicine for pulmonary artery banding-induced right heart failure" | | | |
| 11. | College of Health Sciences Student Research Grant | Polson, Sydney. | Role: Mentor | 5/1/2021-4/30/2022 |
| | "Right ventricular myocardial contrast echocardiography in mice with heart failure" | | | |
| 12. | College of Health Sciences Student Research Grant | Yusifov, Aykhan. | Role: Mentor | 5/1/2021-4/30/2022 |
| | "Adrenergic receptor activation in the heart across the life course" | | | |
| 13. | Wyoming INBRE Undergraduate Research Fellowship | Ernste, Danielle. | Role: Mentor | 5/15/2021-8/25/2021 |
| | "Right versus left heart failure in mice by pulmonary artery banding (PAB) and transaortic constriction (TAC)" | | | |
| 14. | University of Wyoming BMS Program Doctoral Grant | Yusifov, Aykhan. | Role: Mentor | 2/26/2020-5/15/2021 |
| | "Adrenergic signaling by age" | | | |
| 15. | University of Wyoming BMS Program Doctoral Grant | McNair, Ben. | Role: Mentor | 3/26/2021-5/15/2021 |
| | "Fibrosis in the failing right heart" | | | |
| 16. | Wyoming INBRE Undergraduate Research Fellowship | Shorthill, Samantha. | Role: Mentor | 9/1/2020-5/15/2021 |
| | "Effect of exercise on pulmonary hypertension in mice at sea level, Laramie, and high altitude" | | | |
| 17. | College of Health Science Student Research Grant | McNair, Ben. | Role: Mentor | 6/1/2020-5/31/2021 |
| | "AMPK activation for high altitude-induced right heart failure in old mice" | | | |
| 18. | Wyoming INBRE Undergraduate Research Fellowship | Schlatter, Jacob. | Role: Mentor | 9/30/2019-5/18/2020 |
| | "Physiological effect of mTOR inhibition on pulmonary hypertension in old mice" | | | |
| 19. | Wyoming INBRE Undergraduate Research Fellowship | Polson, Sydney. | Role: Mentor | 1/26/2020-5/18/2020 |
| | "Diabetic cardiomyopathy: the forgotten right ventricle" | | | |
| 20. | Wyoming INBRE Undergraduate Research Fellowship | Ostler, Ian. | Role: Mentor | 1/25/2019-5/15/2019 |
| | "Exercise as medicine for right-sided heart failure" | | | |

PUBLICATIONS

Refereed Journals

- O'Connor A., Hatzenbiler D.M., Flom L.T., Bobadilla A.C., **Bruns D.R.**, Schmitt E.E. (2023). "Physiological and Morphometric Differences in Resident Moderate Altitude versus Sea Level Mice." *Aerospace Medicine and Human Performance*.
- Yusifov, A., Borders, M.O.* DeHoff, M.A., Polson, S.M., Schmitt, E.E., **Bruns, D.R.** (2023). "Exercise during the juvenile period protects against isoproterenol-induced cardiac dysfunction later in life". *Journal of Applied Physiology*.
- McNair, B.D., Shorthill, S.K., **Bruns, D.R.** (2023). "More than just a small left ventricle: the right ventricular fibroblast and ECM in health and disease". *AJP-Heart*.
- McNair, B.D., Polson, S.M., Shorthill, S.K., Yusifov, A., Walker, L.A. Weiser-Evans, M.C.M., Kovacs, E.J., **Bruns, D.R.** (2023). "Metformin protects against pulmonary hypertension-induced right ventricular dysfunction in an age- and sex-specific manner independent of cardiac AMPK". *AJP-Heart*.
- Bruns, D.R.**, McNair, B.D., Peelor, F.F., Borowik, A.K., Pranay, A., Yusifov, A., Miller, B.F. (2023). "Skeletal and cardiac muscle have different protein turnover responses in a model of right heart failure". *GeroScience*.
- Yusifova, M., Yusifov, A., Polson, S.M., Todd, W.D., Schmitt, E.E., **Bruns, D.R.** (2023). "Voluntary wheel running exercise does not attenuate circadian and cardiac dysfunction caused by conditional deletion of Bmal1." *Journal of Biological Rhythms*.
- Fullerton, Z.S., McNair, B.D., Marcello, N.A., Schmitt, E.E., **Bruns, D.R.** (2022). "Chronic exposure to high altitude hypoxia promotes loss of muscle mass that is not rescued by metformin. *High Altitude Medicine and Biology*.
- Yusifov, A, Woulfe, K.C., **Bruns, D.R.** (2022). "Mechanisms and implications of sex differences in cardiac aging". *Journal of Cardiovascular Aging*.

9. Schmitt, E.E., McNair, B.D, Polson, S.M., Cook, R.F., **Bruns, D.R.** (2022). "Mechanisms of exercise-induced cardiac remodeling differ between young and aged hearts." *Exercise and Sport Sciences Reviews*.
10. Yusifov, A., Chhatre, V., Koplin, E.K., Schmitt, E.E., Woulfe, K.C., **Bruns, D.R.** (2021). "Transcriptomic analysis of cardiac gene expression across the life-course in male and female mice". *Physiological Reports*.
11. McNair, B.D., Schlatter, J.A., Cook, R.F., Yusifova, M, **Bruns, D.R.** (2021) "Inhibition of mTOR by rapamycin does not improve hypoxic pulmonary hypertension-induced right heart failure in old mice". *Experimental Gerontology*.
12. Yusifov, A., Zumo, J., Cook, R.F, McNair, B.D, Schmitt, E.E., Chhatre, V., Woulfe, K.C., **Bruns, D.R.** (2021). "Cardiac response to adrenergic stress differs by sex and across the lifespan". *Geroscience*.
13. Stephens, K.E., Chernyavskiy, P., **Bruns, D.R.** (2021). "Impact of altitude on COVID-19 infection and death in the United States: a modeling and observational study". *PLOS ONE*.
14. **Bruns, D.R.**, Yusifova, M., Walker, W., Schmitt, E.E. (2020). "The peripheral circadian clock and exercise: lessons from young and old mice". *Journal of Circadian Rhythms*.
15. McNair, B.D., Marcello, N., Smith, D.T., Schmitt, E.E., **Bruns, D.R.** (2020). "Changes in muscle mass and composition by exercise and hypoxia as assessed by DEXA in mice". *Medicina*.
16. Brown, K.D., Waggy, E.D., Nair, S., Schmitt, E.E., **Bruns, D.R.**, Thomas, D.P. (2020) "Sex differences in cardiac AMP-activated protein kinase in response to exhaustive exercise". *Sports Medicine International Open*.
17. Wolff, C.A., Reid, J.J., Musci, R.V., **Bruns, D.R.**, Linden, M.A., Konopka, A.R., Peelor, F.F., Miller, B.F., Hamilton, K.L. (2019). "Differential effects of rapamycin and metformin and metformin in combination with metformin on mechanisms of proteostasis in cultured skeletal myotubes." *J Gerontol A Biol Sci Med Sci*.
18. Schmitt, E.E., Johnson, E.C., Yusifova M., **Bruns, D.R** (2019). "The renal molecular clock: broken by aging and restored by exercise". *AJP-Renal*.
19. **Bruns, D.R.**, Tatman, P.D., Stenmark, K.R., Buttrick, P.M., Walker, L.A (2019). "The right ventricular fibroblast secretome drives cardiomyocyte differentiation." *PLoS ONE*
20. Woulfe, K.C. and **Bruns, D.R.** (2018). "From pediatrics to geriatrics: mechanisms of heart failure across the life-course." *Journal of Cellular and Molecular Cardiology*.
21. **Bruns, D.R.**, Ehrlicher, S.E., Khademi, S., Biela, L.M., Peelor, F.F., Miller, B.F, Hamilton, K.L. (2018) "Differential effects of vitamin C and Protandim on skeletal muscle adaptation to exercise". *Journal of Applied Physiology*.
22. **Bruns, D.R.** and Walker, L.A. (2017). "Exercise and pharmacology as medicine for CVD: from bench to bedside and back." *Exercise and Sports Science Reviews*.
23. **Bruns, D.R.**, Ghincea, A.R., Ghincea, C.V., Autieri, M.V. Watson, P.A., Walker, L.A. (2017). "Interleukin-19 is cardioprotective in dominant negative CREB-mediated heart failure in a sexually dimorphic manner." *World Journal of Cardiology*.
24. **Bruns, D.R.**, Buttrick, P.M., Walker, L.A. (2016) "Genetic ablation of interleukin-18 does not attenuate hypobaric hypoxia-induced right ventricular hypertrophy." *AJP-Lung*.
25. **Bruns, D.R.**, Drake, J.C., Biela, L.M., Peelor, F.F., Miller, B.F., Hamilton, K.L. (2015). "Nrf2 signaling and the slowed aging phenotype: Evidence from long-lived models." *Oxidative Medicine and Cellular Longevity*.
26. Drake, J. C., **Bruns, D.R.**, Peelor, F.F. 3rd, Biela, L.M., Miller, R.A., Miller, B.F., Hamilton, K.L. (2015). "Long-lived Snell dwarf mice display increased proteostatic mechanisms that are not dependent on decreased mTORC1 activity". *Aging Cell*.
27. **Bruns, D.R.**, Brown, R.D., Stenmark, K.R., Buttrick, P.M., Walker, L.A (2014). "Mitochondrial integrity in a neonatal bovine model of right ventricular dysfunction". *AJP-Lung*.
28. Drake, J.C., **Bruns, D.R.**, Peelor, R.F., Biela, L.M., Miller, R.A., Hamilton, K.L., Miller, B.F (2014). "Long-lived crowded litter mice have an age-dependent increase in protein synthesis to DNA synthesis and mTORC1-substrate phosphorylation". *AJP-Endo*.

29. **Reuland, D. J.**, J. M. McCord, and K. L. Hamilton (2013). "The role of Nrf2 in the attenuation of cardiovascular disease". *Exercise and Sports Science Reviews*.
30. **Reuland, D.J.**, Khademi, S., Castle, C.J., Irwin, D.C., McCord, J. M., Miller, B.F., et al. (2012). "Upregulation of phase II enzymes through phytochemical activation of Nrf2 protects cardiomyocytes against oxidant stress". *Free Radic Biol Med*.
31. Miller, B.F., Robinson, M.M., **Reuland, D.J.**, Drake, J.C., Peelor, F.F., 3rd, Bruss, M. D., et al. (2012). "Calorie restriction does not increase short-term or long-term protein synthesis". *J Gerontol A Biol Sci Med Sci*.
32. Donovan, E. L., McCord, J.M., **Reuland, D.J.**, Miller, B.F., & Hamilton, K.L. (2012). "Phytochemical activation of Nrf2 protects human coronary artery endothelial cells against an oxidative challenge". *Oxid Med Cell Longev*.

Book Chapters

Bruns, D.R., Walker, L.A. "Mitochondria and metabolism in right heart failure." (2018). InTechOpen.

INVITED TALKS

1. "Skeletal and cardiac muscle protein turnover in right heart failure". American Aging Association Annual Meeting, 2023. OKC, OK.
2. "Tissue-specific protein turnover in right heart failure." Oklahoma Geroscience Symposium, 2023. OKC, OK.
3. "Mechanisms of nocturia in older adults and their potential rescue by exercise". Hydration 4 Health Scientific Conference, 2022. Remote.
4. "Identification of juvenile factors to treat age-related declines in cardiac adrenergic reserve". Wyoming INBRE Annual Conference, 2022. Laramie, WY.
5. "Not all roads to protection are equal: exercise-induced cardiac remodeling in the young and aged heart". Exercise and Metabolism Seminar, UC-Denver, 2021. Remote.
6. "From pediatrics to geriatrics: sex-specific mechanisms of heart failure across the life-course". College of Health Sciences Research Day, 2021. University of Wyoming. Laramie, WY.
7. "Rapamycin, metformin, and the aging right heart". Invited Speaker. Aging Science Talks, 2021. Remote.
8. "Activation of AMPK for the aging right heart". Invited Seminar. Oklahoma Medical Research Foundation, 2020.
9. "Right-sided heart failure: the heart is only as strong as its weakest ventricle". WY INBRE Video Conference Seminar Series, 2020.
10. "From pediatrics to geriatrics: heart failure across the life-course". College of Health Sciences Seminar Series, 2019. University of Wyoming. Laramie, WY.
11. "High altitude (patho)physiology: cardiovascular, pulmonary, and muscle adaptations to chronic hypoxia". Department of Zoology & Physiology Seminar Series, 2019. University of Wyoming. Laramie, WY.
12. "Pulmonary hypertension-induced right ventricular pressure overload simulates cardiac fibroblast periostin expression and dedifferentiation of adult cardiac myocytes". American Heart Association Scientific Sessions, 2018. Chicago, IL.
13. "Novel and direct myofilament-mediated action of metformin in the aging right heart". Gerontological Society of America Annual Scientific Meeting, 2018. Boston, MA.
14. "Molecular mechanisms of right heart failure". Molecular Monday Seminar Series, 2018. Department of Molecular Biology. University of WY. Laramie, WY.
15. "Back to the bench: A basic science approach to studying human health". Division of Kinesiology & Health Seminar, 2018. University of Wyoming. Laramie, WY.
16. "Therapeutic activation of AMPK for the aging right heart." Cardiology Research Conference, 2018. University of Colorado-Denver. Aurora, CO.
17. "AMP-activated protein kinase as a therapeutic target to improve hypoxia-related cardiac dysfunction in aging". Cardiology Research Conference, 2017. University of Colorado-Denver. Aurora, CO.

18. "Novel mechanisms of right heart failure". Colorado State University, Department of Health and Exercise Science Seminar Series, 2017. Fort Collins, CO.
19. "Pulmonary hypertension-induced right ventricular pressure overload triggers acute epigenetic reprogramming of pro-inflammatory cardiac fibroblasts". American Heart Association Scientific Sessions, 2016. New Orleans, LA.
20. "Interleukin-19: A novel sexually dimorphic cardiac cytokine." American Physiological Society Inflammation, Immunity, and Cardiovascular Diseases, 2016. Westminster, CO.
21. "The epigenetically modified pro-inflammatory cardiac fibroblast drives cardiomyocyte dysfunction in pulmonary hypertension-induced right ventricular pressure overload". Cardiology Research Conference, 2016. University of Colorado-Denver. Aurora, CO.
22. "Molecular mechanisms regulating cardiac dysfunction in hypobaric hypoxia-induced RV pressure overload". Cardiology Research Conference, 2015. University of Colorado-Denver. Aurora, CO.
23. "Activation of Nrf2 for maintenance of redox balance and exercise-induced mitochondrial biogenesis." Center for Environmental Medicine Spring Symposium, 2013. Colorado State University. Fort Collins, CO.
24. "Activation of Nrf2 and upregulation of phase II enzymes in cardiomyocytes by the phytochemicals in Protandim." Rocky Mountain American College of Sports Medicine Regional Meeting, 2011. Fort Collins, CO.

TEACHING EXPERIENCE

2022-present	Human Medicine: Cardiovascular Systems Block Lead University of Wyoming, WWAMI Regional Medical Education
2018-2022	Human Medicine: Cardiovascular, Pulmonary and Renal Block Lead University of Wyoming, WWAMI Regional Medical Education
2016-2017	BIO 1000: Human Biology Metro State University
2015-2018	Problem-Based Learning: MD Curriculum Small Group Facilitator. University of Colorado-Denver

PROFESSIONAL AND ACADEMIC SERVICE

PROFESSIONAL SERVICE

2023	NIH Study Section ad hoc Member: MPPA
2023-	American Aging Association 2025 Organizing Committee
2023	NIH Study Section ad hoc Member: CMAD
2023-	American Physiological Society Program Working Group- Cardiovascular Section Co-Chair
2023-	Editorial Board, Journal of Gerontology: Biological Sciences
2023	American Physiological Society Annual Meeting Cardiovascular Section Abstract Review
2022	NIH Study Section ad hoc Member: MPPB
2022-	American Heart Association Predoctoral/Postdoctoral Peer Review Committee
2022	US National Academy of Medicine Healthy Longevity Catalyst Award Reviewer
2022-	Editorial Board, Journal of Cardiovascular Aging
2021	NIH Director's New Innovator Award Program Stage 1 Reviewer
2021	Singapore Ministry of Education Academic Research Fund Reviewer
2021	NIH Early Career Reviewer: MPPA
2021	Experimental Biology Featured Topic Chair: Exercise and My-old-cardium
2020-	Editorial Board, Journal of Applied Physiology
2020-2022	Wyoming Representative: Rocky Mountain American College of Sports Medicine
2020-2022	American Heart Association Career Development, Transformational Pilot Award Peer Review Committee

2019-2022 Mountain West CTR-IN Grant Review Committee
2018-2022 Gerontological Society of America Meeting Abstract Review
2018- Swiss National Science Foundation Grant Review

Ad-hoc Reviewer

Journal of Molecular and Cellular Cardiology, Journal of Physiology, Medicine & Science in Sports & Exercise, Mechanisms of Aging and Development, Biology of Sex Differences

UNIVERSITY SERVICE

2023 Molecular Biology R1 Faculty Search Committee
2023 Science Initiative Vivarium Design Committee
2023 WWAMI Cardiovascular Sciences Block Lead Interview Committee (UWSOM)
2023 K&H Rehabilitation Science Assistant Professor Search Committee
2023- K&H Seminar Programming Committee
2022 Molecular Biology R1 Faculty Search Committee
2022- Science Initiative 2025 Faculty Advisory Committee
2022- Advanced Research Computing Center (ARCC) Advisory Board Member
2022- K&H Doctoral Program Committee
2022 WWAMI FCM Search Committee
2022 K&H Staff Accountant Search Committee
2021- Molecular and Cellular Life Sciences (MCLS) Steering Committee
2021- CHS Faculty Development Committee
2021 K&H PETE Assistant Professor Search Committee
2020-2021 UW Academic Writing Fellows Mentor
2020 K&H/WWAMI Assistant Lecturer Search Committee
2018-2021 Graduate Recruitment Initiative Planning Committee

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Aging Association, American Heart Association, American Physiological Society

COMMUNITY SERVICE/OUTREACH

2023 Alpha Phi Foundation Red Dress Gala Keynote Speaker
2023 Rock River High School Cardiovascular Science Outreach
2023 Wyoming Science Fair Judge
2023 Women in Math, Science, and Engineering Panelist: Strong Women in STEM
2023 University of Wyoming Swim & Dive Honorary Coach
2022- Volunteer, Eppson Center for Seniors
2022 Youth Basketball Coach- City of Laramie Recreation
2021-2022 Youth Soccer Coach- Laramie Soccer Club and Laramie Parks & Recreation
2021 Surviving & Thriving After Cancer Guest Speaker
2020 Walk with a Doc Guest Speaker
2019- Native American Summer Institute Instructor
2019 Shanghai University School of Sport Summer Program Instructor