

John D. Akins, Ph.D.
Assistant Professor
Department of Kinesiology
University of Georgia

CONTACT INFORMATION

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SUMMARY OF QUALIFICATIONS

Assistant professor with a previous record of National Institutes of Health funding, a Ph.D. in Kinesiology, and over 30 peer-reviewed publications in cardiovascular, autonomic, and exercise physiology. Interdisciplinary research background spans neural–cardiovascular control, vascular function, and health across the lifespan. Demonstrated teaching and mentoring experience with undergraduate and graduate students in integrative physiology and exercise science.

EDUCATION AND TRAINING

July 2026	Postdoctoral Researcher The University of Texas Southwestern Medical Center and Texas Health Presbyterian Hospital Dallas Department of Internal Medicine and the Institute for Exercise and Environmental Medicine Supervisor: Qi Fu, M.D., Ph.D.
August 2021	Doctor of Philosophy in Kinesiology The University of Texas at Arlington Research Area: Applied Physiology Supervisor: R. Matthew Brothers, Ph.D.
August 2017	Master of Science in Kinesiology and Health The University of Texas at Austin Research Area: Exercise Physiology Supervisor: Edward F. Coyle, Ph.D., FACSM
May 2015	Bachelor of Science in Kinesiology and Health The University of Texas at Austin Concentration: Exercise Science Minors: Biology, Mathematics

ACADEMIC EMPLOYMENT

August 2026 - Present	Assistant Professor Department of Kinesiology University of Georgia
September 2021 - July 2026	Postdoctoral Researcher Institute for Exercise and Environmental Medicine The University of Texas Southwestern Medical Center and Texas Health Presbyterian Dallas
January 2020 - August 2021	Graduate Research Assistant College of Nursing and Health Innovation The University of Texas at Arlington
August 2017 - December 2019	Graduate Teaching Assistant Department of Kinesiology The University of Texas at Arlington
August 2015 - August 2017	Graduate Teaching Assistant Departments of Kinesiology and Biology The University of Texas at Austin

PREVIOUS FUNDING

NIH NHLBI Ruth L. Kirschstein NRSA Individual Postdoctoral Fellowship (F32 HL167556-01A1)

<u>Role:</u>	Principal Investigator (Mentor: Qi Fu, M.D., Ph.D.)
<u>Project Title:</u>	Lower Leg Heat Therapy in Older, Hypertensive Women to Improve Blood Pressure and Cognition
<u>Dates of Award:</u>	9/11/2023 – 7/31/2026
<u>Project Goals:</u>	To identify whether lower leg heat therapy is an effective intervention to help improve blood pressure regulation, autonomic-cardiovascular function, and cognition in older women with hypertension.
<u>Award Amount:</u>	\$226,480

Texas American College of Sports Medicine Student Research Development Award

<u>Role:</u>	Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
<u>Project Title:</u>	The Use of Passive Heat Therapy to Ameliorate Vascular Dysfunction in Non-Hispanic Black Individuals
<u>Dates of Award:</u>	2/1/2020 - 1/31/2021
<u>Project Goals:</u>	To determine the effects of one session of whole-body heat therapy on measures of peripheral and cerebral vascular function in non-Hispanic Black individuals.
<u>Award Amount:</u>	\$2,000

University of Texas at Arlington College of Nursing and Health Innovation Pilot Grant

<u>Role:</u>	Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
<u>Project Title:</u>	Mechanisms of Elevated Cardiovascular Disease Risk in Black Women: Role of Vascular Dysfunction

Dates of Award: 7/10/2019 - 8/31/2020
Project Goals: To investigate the underlying mechanisms of altered vascular function in non-Hispanic Black women using cutaneous microdialysis.
Award Amount: \$2,000

American College of Sports Medicine Doctoral Foundation Award

Role: Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
Project Title: Mechanisms of Elevated Cardiovascular Disease Risk in Black Women: Role of Vascular Dysfunction
Dates of Award: 7/1/2019 - 10/31/2020*
Project Goals: To investigate the underlying mechanisms of altered vascular function in non-Hispanic Black women using cutaneous microdialysis.
Award Amount: \$5,000

**Project received a 4-month extension due to COVID-19 research shutdown*

Texas American College of Sports Medicine Student Research Development Award

Role: Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
Project Title: Mechanisms of Elevated Cardiovascular Disease Risk in Black Women: Role of Vascular Dysfunction
Dates of Award: 2/1/2019 - 1/31/2020
Project Goals: To investigate the underlying mechanisms of altered vascular function in non-Hispanic Black women using cutaneous microdialysis.
Award Amount: \$2,000

GRANTS SUBMITTED BUT NOT FUNDED

NIH NHLBI Pathway to Independence Award (Parent K99/R00)

Role: Principal Investigator (Mentor: Qi Fu, M.D., Ph.D.)
Project Title: Autonomic, Cardiovascular, and Immune Consequences of Perimenopause
Scoring: Both initial submission and resubmission were not discussed.
Requested Funding: \$1,032,571

American Heart Association Postdoctoral Fellowship

Role: Principal Investigator (Mentor: Qi Fu, M.D., Ph.D.)
Project Title: Lower Leg Heat Therapy to Improve Blood Pressure in Older Women with Mild Hypertension
Scoring: Initial submission scored as a 28.29%. Declined resubmission to accept NIH NRSA (F32 HL167556-01A1)
Requested Funding: \$140,558

NIH NHLBI Ruth L. Kirschstein NRSA Individual Predoctoral Fellowship

Role: Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
Project Title: Mechanisms of Elevated Cardiovascular Disease Risk in Black Women: Role of Vascular Dysfunction and Sympathetic Activity
Scoring: Initial submission scored as a 46th percentile (Impact Factor: 49) and resubmission scored a 62nd percentile (Impact Factor: 55).
Requested Funding: \$88,561

American Heart Association Predoctoral Fellowship

Role: Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
Project Title: Mechanisms of Elevated Cardiovascular Disease Risk in Black Women: Role of Vascular Dysfunction and Sympathetic Activity
Scoring: Initial submission scored as a 50.55%. Declined resubmission to complete NIH NRSA resubmission.
Requested Funding: \$53,688

American College of Sports Medicine Doctoral Foundation Award

Role: Graduate Principal Investigator (Mentor: R. Matthew Brothers, Ph.D.)
Project Title: Effects of Oral Allopurinol Supplementation on Racial Differences in Microvascular Function
Scoring: 4.56/9
Requested Funding: \$5,000

AWARDS

1. Henry Pickering Bowditch Abstract of Distinction, *American Physiology Summit*, 2026
2. Neural Control & Autonomic Regulation (NCAR) Section Trainee Travel Award, *American Physiology Summit*, 2025
3. 2024 Star Reviewer for the American Journal of Physiology – Regulatory, Integrative and Comparative Physiology, *American Physiological Society Journal Program*, 2025
4. Trainee Platform Competition Winner, *35th International Symposium on the Autonomic Nervous System*, 2024
5. Clinical Research Loan Repayment Program Award - Renewal, *National Institutes of Health – National Heart, Lung, and Blood Institute*, 2024
6. Cardiovascular Section Postdoctoral Research Recognition Award, *American Physiology Summit*, 2024
7. University of Texas at Arlington College of Nursing and Health Innovation Nominee, *Council of Graduate Schools ProQuest Distinguished Dissertation Awards in Biology and Life Science*, 2023
8. Trainee Poster Competition Winner, *33rd International Symposium on the Autonomic Nervous System*, 2022
9. Clinical Research Loan Repayment Program Award - New, *National Institutes of Health – National Heart, Lung, and Blood Institute*, 2022
10. Cardiovascular Section Predoctoral Research Recognition Award, *Experimental Biology*, 2021
11. Graduate Student Oral Abstract Presentation Competition – 1st Place, *UNTHSC Women's Cardiovascular and Brain Health Symposium*, 2021
12. Abstract Finalist – 2nd Place, Doctoral Category, *Texas American College of Sports Medicine*, 2020
13. Environmental & Exercise Physiology (EEP) Nike Loren G. Myhre Predoctoral Research Award, *Experimental Biology*, 2019
14. Manuscript Award Finalist - 3rd Place, *Texas American College of Sports Medicine*, 2019
15. Abstract Finalist – 2nd Place, Doctoral Category, *Texas American College of Sports Medicine*, 2019

TEACHING EXPERIENCE

Fall 2026	Lecture Instructor – University of Georgia Exercise Physiology (KINS 4630/6630)
Fall 2017 - Fall 2019	Laboratory Instructor – The University of Texas at Arlington Introduction to Exercise Science (KINE 1400) Physiology of Exercise (KINE 3315/3415) Biomechanics of Human Movement (KINE 3401) Fitness Assessment and Programming (KINE 4415)
Fall 2016 - Summer 2017	Laboratory Instructor – The University of Texas at Austin Human Systems Physiology Laboratory (BIO 165U)
Fall 2015 - Spring 2016	Laboratory Instructor – The University of Texas at Austin Diagnosis and Evaluation of Fitness (KIN 322) <i>*Guest lectured for the main course</i>

ACCEPTED PEER-REVIEWED JOURNAL ARTICLES

**Represents authorship with equal contributions*

1. Washio, T., Hissen, S.L., **Akins, J.D.**, Takeda, R., D'Souza, A.W., MacNamara, J.P., Sarma, S., Trott, D.W., Lutz, K., Hearon Jr., C.M., Babb, T.G., Levine, B.D., Fadel, P.J., Fu, Q., Sex-specific association between obesity and sympathetic nerve activity in HFpEF. (Accepted; *American Journal of Physiology – Heart and Circulatory Physiology*; H-00214-2026R2)
2. Washio, T., Vogga, R., Hissen, S.L., **Akins, J.D.**, Nelson, D.B., Khan, S., Tomlinson, A.R., Trott, D.W., Babb, T.G., Fu, Q. (2026) Impact of gestational weight gain and maternal weight on sympathetic adaptations. (Accepted - *Hypertension*; ID: HYPE/2025/26623R2)
3. Washio, T., Hissen, S.L., **Akins, J.D.**, Takeda, R., Khan, S., Tomlinson, A.R., Nelson, D.B., Babb, T.G., Fu, Q. (2025) Longitudinal changes in cardiovascular and sympathetic neural responses to static handgrip exercise throughout pregnancy. *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*, 329(5), R661-R672
4. **Akins, J.D.**, Richey, R.E., Martin, Z.T., Fadel, P.J., Brothers, R.M. (2025) Mechanisms of elevated cutaneous vascular tone in college-aged Black individuals. *Hypertension*, 82(10), 1675-1686
5. **Akins, J.D.**, Yoo, J.K., Sun, D., Parker, R.S., Urey, M.A., Romero, S.A., Lawley, J.S., Sarma, S., Vongpatanasin, W., Crandall, C.G., Fu, Q. (2025) Aging attenuates regional vasoconstriction during acute lowering of upper and lower limbs. *Experimental Physiology*, 111(3), 674-683
6. Manabe, K., D'Souza, A.W., Takeda, R., Hissen, S.L., Washio, T., **Akins, J.D.**, Sanchez, B., Fu, Q. (2025) Blunted baroreflex-mediated sympathoinhibition and vasodilation to countdown before exercise in young women compared to men. *Clinical Autonomic Research*, 35, 747-757
7. **Akins, J.D.**, Washio, T., Fu, Q. (2025) Autonomic control of blood pressure in women: the roles of hypertension and aging. *Autonomic Neuroscience: Basic and Clinical*, 260, 103274
8. Washio, T., **Akins, J.D.**, Hissen, S.L., Geib, A.K., Robles, S.A., Fu, Q. (2025) Cardiovascular and sympathetic neural responses during acute vagus nerve stimulation and subsequent static handgrip exercise in healthy adults. *Autonomic Neuroscience: Basic and Clinical*, 259, 103270

9. Washio, T., Takeda, R., Hissen, S.L., **Akins, J.D.**, D'Souza, A.W., MacNamara, J.P., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2025) Maintained sympathetic reactivity but blunted pressor response to static handgrip exercise in heart failure with preserved ejection fraction. *Clinical Autonomic Research*, 35, 487-500
10. Takeda, R., Hissen, S.L., **Akins, J.D.**, Washio, T., Hearon Jr., C.M., MacNamara, J.P., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2024) Sympathetic Neural Control at Rest and During the Cold Pressor Test in Patients with Heart Failure with Preserved Ejection Fraction. *Hypertension*, 81, 917-926
11. Washio, T., Hissen, S., Takeda, R., **Akins, J.D.**, Wakeham, D.J., Brazile, T., Hearon Jr., C.M., MacNamara, J.P., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2024) Potential for reducing resting sympathetic nerve activity with new classes of glucose-lowering drugs in heart failure with preserved ejection fraction. *Clinical Autonomic Research*, 34, 223-226
12. Martin, Z.T., **Akins, J.D.**, Merlau, E., Kolade, J., Al-daas, I., Cardenas, N., Vu, J., Brown, K.K., Brothers, R.M. (2023) The acute effect of whole-body heat therapy on peripheral and cerebral vascular reactivity in black and white females. *Microvascular Research*, 148: 104536
13. Ben Taleb, Z., Dabroy, D., **Akins, J.D.**, Campbell, J., Nelson, M.D., Kalan, M.E., Rezk-Hanna, M., Brothers, R.M. (2023) Pod-based E-Cigarette vs. Combustible Cigarettes: The Impact of Peripheral and Cerebral Vascular Function and Subjective Experiences. *Tobacco Induced Diseases*, 21(71)
14. Washio, T., Hissen, S.L., Takeda, R., Manabe, K., **Akins, J.D.**, Sanchez, B., D'Souza, A.W., Nelson, D.B., Khan, S., Tomlinson, A.R., Babb, T.G., Fu, Q. (2023) Effects of posture changes on dynamic cerebral autoregulation during early pregnancy in women with obesity. *Clinical Autonomic Research*, 33, 121-131
15. Manabe, K., D'Souza, A.W., Washio, T., Takeda, R., Hissen, S.L., **Akins, J.D.**, Fu, Q. (2023) Sympathetic and hemodynamic responses to exercise in heart failure with preserved ejection fraction. *Frontiers in Cardiovascular Medicine*, 10: 1148324
16. **Akins, J.D.**, Okada, Y., Hendrix, J.M., Vongpatanasin, W., Fu, Q. (2023) Greater resting muscle sympathetic nerve activity reduces cold pressor autonomic reactivity in older women but not older men. *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*, 324(5), R656-R665
17. D'Souza, A.W., Hissen, S.L., Okada, Y., Jarvis, S.S., Washio, T., **Akins, J.D.**, Nelson, D.B., Fu, Q. (2023) Differential regulation of sympathetic neural burst frequency and amplitude throughout normal pregnancy: A longitudinal study. *American Journal of Physiology – Regulatory, Integrative and Comparative Physiology*, 324(2), R249-R259
18. Beaudry, R.I., **Akins, J.D.**, Richey, R.E., Brothers, R.M., Nelson, M.D., Sarma, S., Tucker, W.J., Haykowsky, M.J. (2022) Exercise Leg Blood Flow is Preserved in Long-Term Breast Cancer Survivors Previously Treated with Anthracycline Chemotherapy. *Journal of Cardiopulmonary Rehabilitation and Prevention*, 43(1), 61-65
19. Martin, Z.T., Olvera, G., Villegas, C.A., Campbell, J.C., **Akins, J.D.**, Brown, K.K., Brothers, R.M. (2022) The Impact of a Plant-Based Diet on Indices of Cardiovascular Health in African Americans: A Cross-Sectional Study. *Applied Physiology, Nutrition, and Metabolism*, 47(9), 903-914
20. **Akins, J.D.**, Martin, Z.T., Patik, J.C., Curtis, B.M., Campbell, J.C., Olvera, G., Brothers, R.M. (2022) Young, Non-Hispanic Black Men and Women Exhibit Divergent Peripheral and Cerebral Vascular Reactivity. *Experimental Physiology*, 107(5), 450-461

21. Patrician, A., Dawkins, T., Coombs, G.B., Stacey, B., Gasho, C., Gibbons, T., Howe, C.A., Tremblay, J.C., Stone, R.M., Tymko, K., Tymko, C., **Akins, J.D.**, Hoiland, R.L., Vizcardo-Galindo, G.A., Figueroa-Mujica, R., Villafuerte, F.C., Bailey, D.M., Stembridge, M., Anholm, J.D., Tymko, M.M., Ainslie, P.N. (2022) GLOBAL REACH 2018: Iron Infusion at High Altitude Reduces Hypoxic Pulmonary Vasoconstriction Equally in Both Lowlanders and Healthy Andean Highlanders. *Chest*, 161(4), 1022-1035
22. **Akins, J.D.**, Richey, R.E., Campbell, J.C., Martin, Z.T., Olvera, G., Brothers, R.M. (2022) Contributions of Endothelin-1 and L-arginine to Blunted Cutaneous Microvascular Function in Young, Black Women. *American Journal of Physiology – Heart and Circulatory Physiology*, 322(2), H260-H268
23. Stone, R.M., Ainslie, P.N., Tremblay, J.C., **Akins, J.D.**, MacLeod, D.B., Tymko, M.M., DeSouza, C.A., Bain, A.R. (2021) GLOBAL REACH 2018: intra-arterial vitamin C improves endothelial-dependent vasodilatory function in humans at high altitude. *Journal of Physiology*, 600(6), 1373-1383
24. Darling, A.M., Richey, R.E., **Akins, J.D.**, Saunders, E.F.H., Brothers, R.M., Greaney, J.L. (2021) Cerebrovascular Reactivity is Blunted in Young Adults with Major Depressive Disorder: The Influence of Current Depressive Symptomology. *Journal of Affective Disorders*, 295(1), 513-521
25. Bartlett, M.F., **Akins, J.D.**, Oneglia, A.P., Brothers, R.M., Wilkes, D., Nelson, M.D. (2021) Impact of Cutaneous Blood Flow on NIR-DCS Measures of Skeletal Muscle Blood Flow Index. *Journal of Applied Physiology*, 131(3), 914-926
26. Coombs, G.B., **Akins, J.D.**, Patik, J.C., Vizcardo-Galindo, G.A., Figueroa-Mujica, R., Tymko, M.M., Stacey, B.S., Iannetelli, A., Bailey, D.M., Villafuerte, F.C., Ainslie, P.N., Brothers, R.M. (2021) Global Reach 2018: nitric oxide-mediated cutaneous vasodilation is reduced in chronic, but not acute, hypoxia independently of enzymatic superoxide formation. *Free Radical Biology and Medicine*, 172, 451-458
27. ***Akins, J.D.**, *Curtis, B.M., Patik, J.C., Olvera, G., Nasirian, A., Campbell, J.C., Brothers, R.M. (2021) Blunted hyperemic response to mental stress in young, non-Hispanic black men is not impacted by acute dietary nitrate supplementation. *Journal of Applied Physiology*, 130(5), 1510-1521
28. Leary, B.K., Burton, H.M., Vardarli, E., Wolfe, A.S., Crawford, C.K., **Akins, J.D.**, Jensen, J.L., Coyle, E.F. (2020) Differences in joint power distribution in high and low lactate threshold cyclists. *European Journal of Applied Physiology*, 121, 231-238
29. Brothers, R.M., Stephens, B.Y., **Akins, J.D.**, Fadel, P.J. (2020) Influence of sex on heightened vasoconstrictor mechanisms in the non-Hispanic black population. *The FASEB Journal*, 34(11), 14073-82
30. Crawford, C.K., **Akins, J.D.**, Vardarli, E., Wolfe, A.S., & Coyle, E.F. (2020) Prolonged Standing Reduces Fasting Plasma Triglyceride but Does Not Influence Postprandial Metabolism Compared to Prolonged Sitting. *PLoS ONE*, 15(2): e0228297
31. Chou, T.-H., **Akins, J.D.**, Crawford, C.K., Allen, J.R., & Coyle, E.F. (2019) Low Stroke Volume during Exercise with Hot Skin is Due to Elevated Heart Rate. *Medicine & Science in Sports & Exercise*, 51(10), 2025-2032.
32. **Akins, J.D.**, Crawford, C.K., Burton, H.M., Wolfe, A.S., Vardarli, E., & Coyle, E.F. (2019) Inactivity Induces Resistance to the Metabolic Benefits of Acute Exercise. *Journal of Applied Physiology*, 126(4), 1088-1094.

33. Barbosa, T. C., Kaur, J., Stephens, B. Y., **Akins, J. D.**, Keller, D. M., Brothers, R. M., & Fadel, P. J. (2018) Attenuated forearm vascular conductance responses to rhythmic handgrip in young African-American compared with Caucasian-American men. *American Journal of Physiology – Heart and Circulatory Physiology*, 315(5), H1316-H1321.

VIEWPOINTS AND EDITORIALS

34. **Akins, J.D.** & Washio, T. (2025) Connecting postmenopausal vasomotor symptoms and blood pressure regulation - a role for the autonomic nervous system? *American Journal of Physiology – Heart and Circulatory Physiology*, 329(5): H1107-H1109
35. **Akins, J.D.** & Brothers, R.M. (2023) Unlocking the complications of chronic concussion in rugby players: a traumatic tale of cerebral injury. *Experimental Physiology*, 108(9), 1106-1107

BOOK CHAPTERS

36. **Akins, J.D.** & Brothers, R.M. (2019) Cardiovascular Rehabilitation. In: Gatchel, R.J., Schultz, I.Z., & Ray, C. (Eds). *Handbook of Rehabilitation in Older Adults* (pp. 347-369). New York, NY: Springer

ARTICLES UNDER REVIEW & IN PREPARATION

37. *Hori, A., ***Akins, J.D.**, Okada, Y., Washio, T., Fukazawa, A., Vongpatanasin, W., Mizuno, M., Fu, Q., Insulin resistance elevates 24-hour blood pressure variability through blunted sympathetic reactivity to orthostatic stress in older adults with hypertension. (Under Revision; *Clinical Autonomic Research*; ID: AUTR-D-26-00134)
38. ***Akins, J.D.**, *Richey, R.E., Geib, A.K., Takeda, R., Curtis, B.M., Roberts-Reeves, M.A., Moore, A.M., Liu, Y., Romero, S.A., Fu, Q., Home-based lower leg heat therapy in postmenopausal women with hypertension. I. Effects on blood pressure. (Under Revision; *Journal of Applied Physiology*; ID: JAPPL-00501-2026)
39. Richey, R.E., Moore, A.M., Ruiz-Pick, Y.I., Hemingway, H.W., Walsh, M.A., Olivencia-Yurvati, A.H., **Akins, J.D.**, Takeda, R., Roberts-Reeves, M.A., Fu, Q., Romero, S.A., Home-based lower leg heat therapy in postmenopausal women with hypertension. II. Effect on peripheral vascular function. (Under Revision; *Journal of Applied Physiology*; ID: JAPPL-00502-2026)
40. **Akins, J.D.**, Yoo, J.K., Romero, S.A., Sarma, S., Vongpatanasin, W., Crandall, C.G., Fu, Q., Hypertension augments local vasoconstriction during lower limb dependency in older women, but not older men. (planned submission to *American Journal of Physiology – Regulatory, Integrative, and Comparative Physiology*, Fall 2026)
41. ***Akins, J.D.**, *Whyne, E.Z., Washio, T., Jeon-Slaughter, H., Fu, Q., Preeclampsia risk relates to combined elevations in circulating biomarkers before and during early pregnancy. (Planned Submission to *BMC Pregnancy and Childbirth*, Fall 2026)

PUBLISHED ABSTRACTS

1. ***Akins, J.D.**, Hissen, S.L., Washio, T., Khan, S., Tomlinson, A.R., Nelson, D.B., Babb, T.G., Trott, D.W., Fu, Q. (2026) Greater inflammation in women with hypertensive disorders of pregnancy may relate to angiogenic dysregulation. *Physiology*: 41(S1)
***Henry Pickering Bowditch Abstract of Distinction at American Physiology Summit 2026**

2. ***Akins, J.D.**, Takeda, R., Washio, T., Hissen, S.L., Geib, A.K., Roberts-Reeves, M.A., Richey, R.E., Romero, S.A., Fu, Q. (2025) Impact of short-term chlorthalidone treatment on resting sympathetic transduction in older women with hypertension. *Physiology*: 40(S1), 1587
***Selected for a Trainee Travel Award at American Physiology Summit 2025**
3. Geib, A.K., **Akins, J.D.**, Washio, T., Hissen, S.L., Richey, R.E., Roberts-Reeves, M.A., Romero, S.A., Fu, Q. (2025) Acute and chronic effects of lower leg heat therapy on blood pressure in older hypertensive women. *Physiology*: 40(S1), 0558
4. Richey, R.E., Ruiz-Rick, Y., Hemingway, H.W., Moore, A.M., Walsh, M., Olivencia-Yurvati, A.H., **Akins, J.D.**, Takeda, R., Washio, T., Roberts-Reeves, M.A., Curtis, B.M., Fu, Q., Romero, S.A. (2025) Home-based heat therapy reduces plasma pTau-181 in post-menopausal women with hypertension. *Physiology*: 40(S1), 1172
5. ***Akins, J.D.**, Takeda, R., Washio, T., Hissen, S.L., D'Souza, A.W., Geib, A.K., Roberts-Reeves, M.A., Richey, R.E., Romero, S.A., Fu, Q. (2024) Effects of hypertension and chlorthalidone treatment on autonomic-cardiovascular responses to static handgrip exercise in older women. *Clinical Autonomic Research*: 34, 479-527
***Selected for a platform award at 35th International Symposium on the Autonomic Nervous System**
6. Washio, T., Hissen, S.L., **Akins, J.D.**, Takeda, R., Robles, S., Khan, S., Tomlinson, A.R., Nelson, D.B., Babb, T.G., Fu, Q. (2024), Longitudinal changes in cardiovascular and sympathetic neural responses to static handgrip exercise through pregnancy. *Clinical Autonomic Research*: 34, 479-527
7. ***Akins, J.D.**, Takeda, R., Washio, T., Hissen, S.L., Richey, R.E., Romero, S.A., Fu, Q. (2024) Neural-Cardiovascular Responses to Orthostasis Following 8-Weeks of Home-Based Lower Leg Heating in Older Women with Hypertension. *Physiology*: 39(S1), 601
***Selected for a Research Recognition Award at American Physiology Summit 2024**
8. Washio, T., Hissen, S.L., **Akins, J.D.**, Takeda, R., D'Souza, A.W., MacNamara, J.P., Hearon Jr., C.M., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2024) Sex difference in resting sympathetic activity and systemic inflammation in heart failure with preserved ejection fraction. *Physiology*: 39(S1), 351
9. Richey, R.E., Hemingway, H.W., Moore, A.M., Walsh, M., Olivencia-Yurvati, A.H., **Akins, J.D.**, Takeda, R., Washio, T., Hissen, S.L., Roberts-Reeves, M.A., Curtis, B.M., Fu, Q., Romero, S.A. (2024) Effect of home-base heat therapy on 24-h blood pressure and cutaneous microvascular function in post-menopausal women with hypertension. *Physiology*: 39(S1), 941
10. Kolade, J., **Akins, J.D.**, Ortiz, A., Brothers, R.M. (2023) Investigating the Relationship Between Peripheral Microvascular and Cerebral Vascular Vasodilator Function in College-Aged Individuals. *Medicine & Science in Sports & Exercise*: 55(9S), 404-405
11. **Akins, J.D.**, Takeda, R., Washio, T., Hissen, S.L., Richey, R.E., Romero, S.A., Fu, Q. (2023) Effects of chlorthalidone treatment on neural-cardiovascular responses to orthostasis in older women with hypertension. *Physiology*: 38(S1)
12. Washio, T., Takeda, R., Hissen, S.L., **Akins, J.D.**, D'Souza, A.W., Manabe, K., Hearon Jr., C.M., MacNamara, J.P., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2023) Normal sympathetic neural but blunted cardiovascular responses during static handgrip exercise in heart failure with preserved ejection fraction. *Physiology*: 38(S1)

13. Hissen, S.L., Takeda, R., Washio, T., **Akins, J.D.**, Hearon Jr., C.M., MacNamara, J.P., Sarma, S., Levine, B.D., Fadel, P.J., Fu, Q. (2023) Sympathetic transduction to blood pressure at rest is maintained in heart failure with preserved ejection fraction. *Physiology*: 38(S1)
14. Kolade, J., **Akins, J.D.**, Ortiz, A., Brothers, R.M. (2023) Investigating the Relationship Between Peripheral Microvascular and Cerebral Vascular Vasodilator Function in College-Aged Individuals. *International Journal of Exercise Science: Conference Proceedings*: 2(15), Article 99
15. ***Akins, J.D.**, Okada, Y., Hendrix, J.M., Vongpatanasin, W., Levine, B., Fu, Q. (2022) Resting sympathetic nerve activity differentially influences cold-pressor reactivity in older men and women. *Clinical Autonomic Research*: 32, 313-380
***Selected for a poster award at 33rd International Symposium on the Autonomic Nervous System**
16. Martin, Z.T., **Akins, J.D.**, Campbell, J.C., Stephens, B.Y., Fadel, P.J., Brothers, R.M. (2022) Sympathetically-Mediated Cutaneous Vasoconstriction is Similar Between Non-Hispanic Black and White Individuals. *Medicine & Science in Sports & Exercise*: 54(9S), 25-26
17. Campbell, J.C., **Akins, J.D.**, Dabroy, D.M., Yesmin, F., Nelson, M.D., Ben Taleb, Z., Brothers, R.M. (2022) Acute Impact of JUUL Electronic Cigarette Use on Cerebral Vascular Vasodilator Responsiveness. *The FASEB Journal*: 36(S1)
18. Merlau, E.R., Martin, Z.T., **Akins, J.D.**, Campbell, J.C., Stephens, B.Y., Fadel, P.J., Brothers, R.M. (2022) Sympathetically-Mediated Cutaneous Vasoconstriction is Similar Between Non-Hispanic Black and White Individuals. *International Journal of Exercise Science: Conference Proceedings*: 2 (14), Article 52.
19. Martin, Z.T., **Akins, J.D.**, Patik, J.C., Curtis, B.M., Campbell, J.C., Olvera, G., Brothers, R.M. (2022) Young, Non-Hispanic Black Males and Females Exhibit Divergent Peripheral and Cerebral Vascular Reactivity. *Circulation*: 144(Suppl_1)
20. Taleb, Z.B., Dabroy, D., **Akins, J.D.**, Campbell, J., Yesmin, F., Brothers, R.M. (2021) Juul vs. combustible cigarette: Impact on vascular function, lung function and subjective experiences. *APHA 2021 Annual Meeting and Expo*
21. ***Akins, J.D.**, Martin, Z.T., Patik, J.C., Curtis, B.M., Campbell, J.C., Olvera, G., Brothers, R.M. (2021) Differences in Hypercapnia-Induced Cerebral Vasodilation Between Young, Black Men and Women. *The FASEB Journal*: 35 (S1) 1-1
***Selected for a Research Recognition Award at Experimental Biology 2021**
22. Campbell, J.C., **Akins, J.D.**, Richey, R.E., Patik, J.C., Martin, Z.T., Brothers, R.M. (2021) Blunted Sensory Nerve-Mediated Cutaneous Vasodilation in Black Women and the Relationship with Endothelin-1 and L-arginine. *The FASEB Journal*: 35 (S1) 1-1
23. Darling, A.M., **Akins, J.D.**, Richey, R.E., Saunders, E.F.H., Brothers, R.M., Greaney, J.L. (2021) The Influence of Current Depressive Symptomology on Cerebrovascular Function in Young Adults with Major Depressive Disorder. *The FASEB Journal*: 35 (S1) 1-1
24. **Akins, J.D.**, Richey, R.E., Campbell, J.C., Martin, Z.T., Brothers, R.M. (2020) Blunted Cutaneous Thermal Reactivity in Black Women and the Relationship with Endothelin-1 and L-arginine. *The FASEB Journal*: 34 (S1) 1-1
25. Richey, R.E., **Akins, J.D.**, Campbell, J.C., Brothers, R.M., Greaney, J.L (2020) Cerebrovascular Reactivity in Young Adults with Major Depressive Disorder. *The FASEB Journal*: 34 (S1) 1-1

26. Martin, Z.T., Villegas, C.A., Olvera, G., Campbell, J.C., **Akins, J.D.**, Brothers, R.M. (2020) Central Blood Pressure and Peripheral Reactive Vasodilation in Plant-Based and Typical Dieting African Americans. *The FASEB Journal*: 34 (S1) 1-1
27. **Akins, J.D.**, Richey, R.E., Campbell, J.C., Martin, Z.T., Brothers, R.M. (2020) Relationships Between Indices of Macrovascular and Microvascular Function in Young, Black Women. *International Journal of Exercise Science: Conference Proceedings*: 2(12), 86
28. Richey, R.E., **Akins, J.D.**, Campbell, J.C., Brothers, R.M., Greaney, J.L (2020) Cerebral Vascular Function Demonstrated by Depression Symptom Severity in Young Adults with Depression. *International Journal of Exercise Science: Conference Proceedings*: 2(12), 65
29. Martin, Z.T., Villegas, C.A., Olvera, G., Campbell, J.C., **Akins, J.D.**, Brothers, R.M. (2020) Central Blood Pressure and Peripheral Reactive Vasodilation in Plant-Based and Typical Dieting African Americans. *International Journal of Exercise Science: Conference Proceedings*: 2(12), 52
30. Shoaib, S., Richey, R.E., Pham, S.M., Mukherjee, D., **Akins, J.D.**, Saunders, E.F.H., Brothers, R.M., Greaney, J.L (2020) The Relation Between Cognitive Function and Cerebral Vasodilatory Reactivity in Young Adults with Major Depressive Disorder. *International Journal of Exercise Science: Conference Proceedings*: 2(12), 60
31. Pham, S., Richey, R.E., Shoaib, S., **Akins, J.D.**, Saunders, E.F.H., Brothers, R.M., Greaney, J.L. (2020) Cutaneous and Muscle Reactive Hyperemia in Young Adults with Major Depressive Disorder. *International Journal of Exercise Science: Conference Proceedings*: 2(12), 59
32. Leary, B.K., Burton, H.M., Vardarli, E., Wolfe, A.S., Crawford, C.K., **Akins, J.D.**, & Coyle, E.F. (2019) Lower Extremity Joint Power and Muscle Activation in High and Low Lactate Threshold Cyclists. *Medicine & Science in Sports & Exercise*, 51 (6S), 39-40
33. Martin, Z.T., **Akins, J.D.**, DeSpain, K.R., Fadel, P.J., Brothers, R.M., Trott, D.W. (2019). Normotensive Black Men Exhibit Augmented CD4 to CD8 T Cell Ratios Compared to White Men. *The FASEB Journal*, 33 (1_supplement), 696.28-696.28
34. Campbell, J.C., **Akins, J.D.**, Olvera, G., Curtis, B.M., Brothers, R.M. (2019). Racial Differences in Vascular Function in Response to Mental Stress: Role of Acute Dietary Nitrate Supplementation. *The FASEB Journal*, 33 (1_supplement), 541.18-541.18
35. Olvera, G., **Akins, J.D.**, Richey, R.E., Campbell, J.C., Martin, Z.T., Chan, E.Y., Ogundipe, A.O., Brothers, R.M. (2019). Attenuated Mental-Stress Induced Brachial Artery Hyperemia in Women Relative to Men. *The FASEB Journal*, 33 (1_supplement), 541.16-541.16
36. ***Akins, J.D.**, Campbell, J.C., Olvera, G., Fadel, P.J., Brothers, R.M. (2019). Exaggerated Alpha-Adrenoreceptor Mediated Vasoconstriction in Young Black Men is not Influenced by Superoxide-Mediated Oxidative Stress. *The FASEB Journal*, 33 (1_supplement), 696.29-696.29
***Selected for the APS Environmental & Exercise Physiology Nike Loren G. Myhre Predoctoral Research Award**
37. Coombs, G.B., **Akins, J.D.**, Patik, J.C., Vizcardio-Galinda, G., Figueroa-Mujica, J., Villafuerte, F.C., Tymko, M.M., Ainslie, P.N., & Brothers, R.M. (2019). Alterations in cutaneous microvascular function at high altitude in lowlanders and highlanders. *The FASEB Journal*, 33 (1_supplement), 838.28-838.28
38. Richey, R.E., **Akins, J.D.**, Campbell, J.C., Olvera, G., Martin, Z.T., Brothers, R.M. (2019). Similarities in Vasoconstrictor Responsiveness to Exogenous Norepinephrine in the Cutaneous Circulation Between

Young Black and White Men. *International Journal of Exercise Science: Conference Proceedings*: 2(11), 82

39. **Akins, J.D.**, Patik, J.C., Curtis, B.M., Olvera, G., Campbell, J.C., Brothers, R.M. (2019). Impaired Muscarinic Receptor-Mediated Vasodilation in Young, Black Men is Not Influenced by Oxidative Stress. *International Journal of Exercise Science: Conference Proceedings*: 2(11), 84.
40. Coombs, G.B., Patik, J.C., **Akins, J.D.**, Ainslie, P.N., & Brothers, R.M. (2018). Influence of Oxidative Stress on Microvascular Function in Humans during Acute Hypoxia. *Physiological Society Annual Meeting*
41. Curtis, B.M., **Akins, J.D.**, Patik, J.C., Olvera, G., Nasirian, A., Campbell, J.C., & Brothers, R.M. (2018). Racial Differences in Vascular Function in Response to Mental Stress. *International Journal of Exercise Science: Conference Proceedings*, 2 (10), 30
42. Patik, J.C., Curtis, B.M., **Akins, J.D.**, Nasirian, A., Olvera, G., & Brothers, R.M. (2018). Evidence of Racial Differences in Microvascular Function Among College-Aged Women. *International Journal of Exercise Science: Conference Proceedings*, 2 (10), 21
43. Patik, J.C., Curtis, B.M., **Akins, J.D.**, Nasirian, A., Olvera, G., & Brothers, R.M. (2018). Apocynin and Allopurinol Ameliorate Racial Differences in Cutaneous Microvascular Thermal Reactivity in Young Black Men but Not Black Women. *The FASEB Journal* 32 (1_supplement), 722.27-722.27
44. Barbosa, T.C., Kaur, J., Stephens, B.Y., **Akins, J.D.**, Brothers, R.M., & Fadel, P.J. (2018). Racial Differences in Forearm Vascular Conductance Response during Dynamic Handgrip Exercise. *The FASEB Journal* 32, (1_supplement), 722.25-722.25
45. **Akins, J.D.**, Patik, J.C., Curtis, B.M., Nasirian, A., Olvera, G., Fadel, P.J., & Brothers, R.M. (2018). Potential Effects of Sex on Vascular Dysfunction in Young Black Individuals. *The FASEB Journal* 32, (1_supplement), 722.26-722.26
46. Chou, T.-H., **Akins, J.D.**, Crawford, C.K., Allen, J.R., & Coyle, E.F. (2017). The Independent Effect of Heart Rate on Stroke Volume When Skin Temperature is Hot and Cool During Exercise. *Medicine & Science in Sports & Exercise*, 49 (5S), 668

PROFESSIONAL PRESENTATIONS

1. Institute for Exercise and Environmental Medicine Works in Progress, Hypertensive Disorders of Pregnancy: Can we identify novel predictive biomarkers?, February 2026
2. University of Georgia Department of Kinesiology, Addressing Cardiovascular Disease Risk: Autonomic-Cardiovascular Function Across the Lifespan, February 2026
3. Institute for Exercise and Environmental Medicine Works in Progress, Vascular and Neural Mechanisms of Chronic Leg Heating in Pregnant Women with Obesity: An Introduction to SWADL, August 2025
4. University of Texas Southwestern Medical Center Women's Health Research Initiative Spring Forum, Women's Heart Health Laboratory, April 2025 (*Presented as a substitute for Dr. Qi Fu*)
5. Institute for Exercise and Environmental Medicine Works in Progress, Chronic Lower Leg Heating for the Treatment of Hypertension in Older Women: Antihypertensive Therapy and Resting Sympathetic Transduction, February 2025

6. 35th International Symposium on the Autonomic Nervous System (Hosted by the American Autonomic Society), Effects of hypertension and chlorthalidone treatment on autonomic-cardiovascular responses to static handgrip exercise in older women, November 2024 (*Selected as a winner of the trainee platform competition*)
7. Institute for Exercise and Environmental Medicine Works in Progress, Physiological Consequences of Perimenopause and the Role of Endogenous Sex Hormones, August 2024
8. Institute for Exercise and Environmental Medicine Works in Progress, Chronic Lower Leg Heating for the Treatment of Hypertension in Older Women: Autonomic-Cardiovascular Responses to the Cold Pressor Test, March 2024
9. Institute for Exercise and Environmental Medicine Works in Progress, Chronic Lower Leg Heating for the Treatment of Hypertension in Older Women: Autonomic-Cardiovascular Responses to Orthostatic Stress, September 2023
10. 33rd International Symposium on the Autonomic Nervous System (Hosted by the American Autonomic Society), Resting Sympathetic Nerve Activity Differentially Influences Cold-Pressor Reactivity in Older Men and Women, November 2022 (*Presented as an award winner for the trainee poster competition*)
11. Institute for Exercise and Environmental Medicine Works in Progress, Chronic Lower Leg Heating for the Treatment of Hypertension in Older Women: Protocol Review and Project Updates, October 2022
12. University of Texas Southwestern Medical Center Jere H. Mitchell Journal Club, Arterial stiffness and blood pressure are similar in naturally menstruating and oral contraceptive pill-using women during the higher hormone phases, April 2022
13. Institute for Exercise and Environmental Medicine Works in Progress, Cold Pressor Test in Hypertensive Men and Women, March 2022
14. Experimental Biology 2021, Differences in Hypercapnia-Induced Cerebral Vasodilation Between Young, Black Men and Women, April 2021
15. The University of North Texas Health Science Center Women's Cardiovascular and Brain Health Symposium, Differences in Hypercapnia-Induced Cerebral Vasodilation Between Young, Black Men and Women, April 2021
16. University of Texas at Arlington Kinesiology Journal Club, Physiological demands of running at 2-hour marathon race pace, March 2021
17. University of Texas at Arlington Kinesiology Journal Club, Popliteal flow-mediated dilatory responses to an acute bout of prolonged sitting between earlier and later phases of natural menstrual and oral contraceptive pill cycles, October 2020
18. University of Texas at Arlington Kinesiology Journal Club, Identification and function of fibrocytes in skeletal muscle injury repair and muscular dystrophy, March 2020
19. The University of North Texas Health Science Center Women's Cardiovascular and Brain Health Symposium, Blunted Cutaneous Thermal Reactivity in Black Women and the Relationship with Endothelin-1 and L-arginine, January 2020
20. University of Texas at Arlington Kinesiology Journal Club, Dynamic autoregulation of cutaneous circulation: differential control in glabrous versus nonglabrous skin, September 2019

21. Sigma Theta Tau International Honor Society of Nursing, Delta Theta Chapter, Research Symposium, Potential Effects of Sex on Vascular Dysfunction in Young, Black Individuals, March 2018
22. University of Texas at Arlington Kinesiology Journal Club, The role of mitochondria derived reactive oxygen species in microvascular dysfunction in chronic kidney disease, January 2018

POSTER PRESENTATIONS

1. University of Texas Southwestern Medical Center Cardiology Research Fellow Poster Session, Greater inflammation in women with hypertensive disorders of pregnancy may relate to angiogenic dysregulation, May 2026
2. American Physiology Summit (Hosted by the American Physiological Society), Greater inflammation in women with hypertensive disorders of pregnancy may relate to angiogenic dysregulation, April 2026
3. University of Texas Southwestern Medical Center Cardiology Research Fellow Poster Session, Impact of short-term chlorthalidone treatment on resting sympathetic transduction in older women with hypertension, May 2025
4. American Physiology Summit (Hosted by the American Physiological Society), Impact of short-term chlorthalidone treatment on resting sympathetic transduction in older women with hypertension, April 2025
5. University of Texas Southwestern Medical Center Women's Health Research Initiative Spring Forum, Impact of short-term chlorthalidone treatment on resting sympathetic transduction in older women with hypertension, April 2025
6. University of Texas Southwestern Medical Center Cardiology Research Fellow Poster Session, Neural-Cardiovascular Responses to Orthostasis Following 8-Weeks of Home-Based Lower Leg Heating in Older Women with Hypertension, May 2024
7. American Physiology Summit (Hosted by the American Physiological Society), Neural-Cardiovascular Responses to Orthostasis Following 8-Weeks of Home-Based Lower Leg Heating in Older Women with Hypertension, April 2024
8. University of Texas Southwestern Medical Center Postdoctoral Association Symposium, Effects of chlorthalidone treatment on neural-cardiovascular responses to orthostasis in older women with hypertension, September 2023
9. University of Texas Southwestern Medical Center Cardiology Research Fellow Poster Session, Effects of chlorthalidone treatment on neural-cardiovascular responses to orthostasis in older women with hypertension, May 2023
10. American Physiology Summit (Hosted by the American Physiological Society), Effects of chlorthalidone treatment on neural-cardiovascular responses to orthostasis in older women with hypertension, April 2023
11. 33rd International Symposium on the Autonomic Nervous System (Hosted by the American Autonomic Society), Resting Sympathetic Nerve Activity Differentially Influences Cold-Pressor Reactivity in Older Men and Women, November 2022
12. Texas American College of Sports Medicine Annual Meeting, Differences in Hypercapnia-Induced Cerebral Vasodilation Between Young, Black Men and Women, February 2019

13. Texas American College of Sports Medicine Annual Meeting, Relationships Between Indices of Macrovascular and Microvascular Function in Young, Black Women, February 2020
14. The University of North Texas Health Science Center Women's Cardiovascular and Brain Health Symposium, Blunted Cutaneous Thermal Reactivity in Black Women and the Relationship with Endothelin-1 and L-arginine, January 2020
15. The University of Texas at Arlington Graduate Research Day, Impaired Muscarinic Receptor-Mediated Vasodilation in Young, Black Men is Not Influenced by Oxidative Stress, May 2019
16. Sigma Theta Tau International Honor Society of Nursing, Delta Theta Chapter, Research Symposium, Exaggerated Alpha-Adrenoreceptor Mediated Vasoconstriction in Young Black Men is not Influenced by Superoxide-Mediated Oxidative Stress, March 2019
17. Experimental Biology 2019, Exaggerated Alpha-Adrenoreceptor Mediated Vasoconstriction in Young Black Men is not Influenced by Superoxide-Mediated Oxidative Stress, March 2019
18. Texas American College of Sports Medicine Annual Meeting, Impaired Muscarinic Receptor-Mediated Vasodilation in Young, Black Men is Not Influenced by Oxidative Stress, February 2019
19. Texas American College of Sports Medicine Annual Meeting, Blunted Hyperemic Responses to Mental Stress in Young, Black Men are Not Ameliorated by Acute Dietary Nitrate Supplementation, February 2019 (*presented as a finalist for the 2019 TACSM Manuscript Award*)
20. The University of Texas at Arlington Graduate Research Day 2018, Potential Effects of Sex on Vascular Dysfunction in Young, Black Individuals, May 2018
21. Experimental Biology 2018, Potential Effects of Sex on Vascular Dysfunction in Young, Black Individuals, April 2018

COMMUNITY EDUCATION

1. Dallas College Emeritus Program, "Under Pressure" – Understanding Your Blood Pressure
 Brookhaven Campus - February 2024
 Richland Campus – March 2024
 Pleasant Grove Center – April 2024
 Richland Campus – June 2024

MENTORING EXPERIENCE

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|------------------------------|---|
| Summer 2026 | Mariyah Sardharwala , Undergraduate Summer Intern
- Project focused on hemodynamic responses to orthostasis in women during pregnancy |
| Summer 2025 -
Summer 2026 | Shaun C. Brazelton , Research Associate
- Trained in all relevant laboratory techniques for the Women's Heart Health Laboratory |
| Summer 2025 | Charlotte Hamilton , Undergraduate Summer Intern
- Project focused on vascular responses to leg dependency in older women with hypertension |
| Spring 2025 - | Nancy Wang , Medical Student |

Spring 2026	- Projects focused on identifying potential racial differences in blood pressure regulation and contributions to blood pressure control and neural-cardiovascular control of blood pressure during the cold pressor test in older women with hypertension
Summer 2024	Melanie Mizell , Undergraduate Summer Intern - Project focused on extracting different metrics of sleep data in pregnant women from both Actigraph and WatchPAT devices
Summer 2024 - Summer 2026	Zoey Payerle , Undergraduate Summer Intern - Helped aggregate and confirm data accuracy for the Women's Heart Health Laboratory trial investigating lower-leg heat therapy in older women with hypertension - Projects focused on correction of physiological blood pressure signals during head-up tilt and cerebrovascular responses in older women with hypertension
Fall 2023 - Present	Swati Birla , Undergraduate Intern (Co-mentored) - Project focused on fetal and maternal heart rate responses to head up tilt during late pregnancy
Fall 2023 - Fall 2024	Skyler Robles , Research Associate (Co-mentored) - Trained in all relevant laboratory techniques for the Women's Heart Health Laboratory
Summer 2023 - Summer 2025	Anna K. Geib , Research Associate (Co-mentored) - Trained in all relevant laboratory techniques for the Women's Heart Health Laboratory - Project focused on the acute blood pressure responses to lower-leg heating in older women with hypertension
Summer 2023 - Summer 2024	Rhea Vogga , Undergraduate Intern (Co-mentored) - Project focused on sleep apnea and gestational weight gain in pregnancy
Fall 2022 - Summer 2023	Anthony J. Kendall , Research Assistant (Co-mentored) - Trained in all relevant laboratory techniques for the Women's Heart Health Laboratory
Spring 2022 - Fall 2022	Sierra Proctor , Research Associate (Co-mentored) - Trained in all relevant laboratory techniques for the Women's Heart Health Laboratory
Fall 2020 - Summer 2021	Joshua Vu , Undergraduate Student - Provided training to assess peripheral and cerebrovascular function plus their respective analyses - Project focused on the cerebrovascular responses to hypercapnia in young, otherwise healthy adults

PROFESSIONAL AFFILIATIONS AND SERVICES

MEMBERSHIPS

American Autonomic Society (AAS)	2022 - Present
American College of Sports Medicine (ACSM); Texas Chapter	2017 – 2022
American Heart Association (AHA)	2018 – 2025
American Physiological Society (APS)	2018 – Present
The International Society for Microneurography	2023 – Present
International Society for Gravitational Physiology	2025 – 2026

AD HOC REVIEWER

American Journal of Physiology – Heart and Circulatory Physiology	2023 - Present
American Journal of Physiology – Regulatory, Integrative and Comparative Physiology	2022 – Present
Autonomic Neuroscience: Basic and Clinical	2024 – Present
BMC Geriatrics	2026 – Present
Experimental Physiology	2025 – Present
Hypertension	2025 – Present
Journal of Applied Physiology	2024 – Present
The Journal of Physiological Sciences	2022
Physiological Reports	2026 – Present

ASSISTANT REVIEWER FOR SCIENTIFIC JOURNALS

Journal of the American Medical Association - Cardiology	2021
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PROFESSIONAL ORGANIZATION SERVICE

<u>American Physiological Society</u>	
Neural Control & Autonomic Regulation Abstract Award Reviewer	2026
<u>Texas American College of Sports Medicine</u>	
Abstract Reviewer	2024 – Present
Student Bowl Referee	2019-2021
<u>University of Texas Southwestern Medical Center</u>	
Postdoctoral Association Travel Award Abstract Reviewer	2025

COMMITTEE SERVICE

American Autonomic Society Trainee Committee	
Regular Member	2024 – 2026
Co-Chair	2026
Employee Recognition & Diversity Awareness Committee	2022 – 2026
Institute for Exercise and Environmental Medicine	

CONTRACT SERVICE

Locke Law US, LLC	2021 – 2022
Silicon Labs	2016

VOLUNTEERING & PUBLIC OUTREACH

2024 - Present	Destination Imagination (West SAYES Region), Deputy Regional Director El Paso, TX
2016	Corner Store Country Run, 5k & Fair, Volunteer Round Rock, TX
2015 - 2019	Destination Imagination (West SAYES Region), Challenge Master El Paso, TX
2010 - 2012	Dame La Mano Crisis Center, Volunteer El Paso, TX
2008 - Present	Destination Imagination (Texas Affiliate and West SAYES Region), Volunteer El Paso, TX
2008 - 2011	Human Performance Center, Volunteer El Paso, TX

CERTIFICATIONS

2024	Preparing for a Scientific Meeting Certificate American Physiological Society
2024 - 2025	Postdoctoral Training Certificate in Scientific Management University of Texas Southwestern Medical Center
2023	Reviewer Certificate Program American Physiological Society
2021 - 2023	Postdoctoral Training Certificate in Research University of Texas Southwestern Medical Center
2021 - Present	Bloodborne Pathogens Training Texas Health Resources
2021 - Present	Basic Life Support American Heart Association RQI2025

2021 - Present	Responsible Conduct in Research Training Collaborative Institutional Training Initiative (CITI Program)
2021 - Present	Health Insurance Portability and Accountability Act (HIPAA) Training Collaborative Institutional Training Initiative (CITI Program)
2021	On-Site Biohazardous Waste Management - Autoclave Training University of Texas at Arlington, Environmental Health and Safety
2019	Chemical Management System Training University of Texas at Arlington, Environmental Health and Safety
2018	enCORE™ Dual Energy X-Ray Absorptiometry Training GE Healthcare
2017 - Present	Human Subjects Protection Training Collaborative Institutional Training Initiative (CITI Program)
2017 - Present	Good Clinical Practice Training Collaborative Institutional Training Initiative (CITI Program)
2017 - Present	Biosafety Level 2 Training University of Texas at Arlington, Environmental Health and Safety
2017 - Present	Bloodborne Pathogens Training University of Texas at Arlington, Environmental Health and Safety
2017	Basic Phlebotomy Skills Course Austin Community College
2015 - 2021	First Aid, CPR, AED Training American Heart Association

TECHNICAL EXPERTISE

LABORATORY SKILLS

- Administration of cognitive function assessments (NIH Toolbox; Certified MoCA Administrator)
- Aerobic ($\dot{V}O_{2max}/\dot{V}O_{2peak}$) and anaerobic (Wingate, vertical jump) exercise performance
- Beat-to-beat (finger photoplethysmography), auscultatory (electronic, manual), and ambulatory blood pressure monitoring
- Body composition (skinfolds, bioelectrical impedance analysis)
- Cardiac output (acetylene rebreathing)
- Cutaneous blood flow (laser Doppler flowmetry) and temperature (thermocouples)
- Cutaneous microdialysis (membrane placement, drug mixing, drug delivery)
- Electrocardiogram (12-lead, 3-lead)
- Flow cytometry with bead-based immunoassays
- Macrovascular (flow-mediated vasodilation) and microvascular (reactive hyperemia) function
- Mass spectrometry for expired gases
- Peripheral Doppler ultrasound (brachial, femoral, carotid, and uterine arteries) using various machines (Terason, GE, Phillips)
- Peroneal microneurography with external stimulation (NASA, NeuroAmp)
- Phlebotomy and blood processing
- Physical activity and energy expenditure (accelerometry, indirect calorimetry)

- Spectrophotometric and enzyme-linked immunosorbent assays
- Transcranial Doppler ultrasound (Multigon, DWL)

ADMINISTRATIVE SKILLS

- Food and Drug Administration Investigational New Drug Applications
- Preparation of Institutional Review Board documentation

TECHNOLOGY SKILLS

- Data acquisition (LabChart, Biopac Acknowledge) and data processing (LabChart, LabView, Ensemble) software
- Data analysis and visualization software (GraphPad Prism, SPSS, Jamovi, Excel)
- Microsoft Office (Word/Excel/PowerPoint)