# Claire E. Kissell, PhD

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### **EDUCATION**

Ph.D. Applied Physiology, August 2023

Southern Methodist University (SMU), Dallas, TX

Dissertation: Alterations to Cardiovascular Control in Females with Relapsing-Remitting Multiple

Sclerosis at Rest and During Stress

M.Sc. Biology (Concentration in Exercise Science), May 2018

University of Colorado-Colorado Springs (UCCS), Colorado Springs, CO

Thesis: Modest Reductions in Skin Temperature After the Onset of a Simulated Hemorrhagic

Challenge Improve LBNP Tolerance Following Exercise Heat Stress

B.S. Applied Physiology & Health Management, May 2016

B.A. Psychology, May 2016

Southern Methodist University, Dallas, TX

Cum Laude

#### PROFESSIONAL APPOINTMENTS

Aug 2025 - Present	Assistant Professor of Exercise Physiology
	School of Exercise and Nutritional Sciences

San Diego State University, San Diego, CA

Aug 2023 – **Post-Doctoral Research Fellow** 

July 2025 Human Neural Cardiovascular Control Lab

University of Texas at Arlington, Arlington, TX

June 2022 – American Heart Association Predoctoral Fellow

May 2023 Integrative Physiology Laboratory

Southern Methodist University, Dallas, TX

May 2018 – Graduate Teaching and Research Assistant

June 2022 Department of Applied Physiology and Wellness

Southern Methodist University, Dallas, TX

Aug 2016 – Graduate Teaching and Research Assistant

May 2018 Department of Biology

University of Colorado-Colorado Springs, Colorado Springs, CO

#### AWARD AND HONORS

<u>Awards</u>	
2025	1st Place Poster, Robert J. Hardin Translational Cardiovascular Research Symposium (\$300)
2024	3rd Place Poster, Robert J. Hardin Translational Cardiovascular Research Symposium (\$50)
2024	Michael J. Brody Young Investigator Award, America Physiological Society (\$1000)
2023	Outstanding PhD Student Award, SMU
2023	Research Recognition Award, American Physiological Society (\$500)
2023	2 <sup>nd</sup> Place Doctoral Poster, Texas American College of Sports Medicine (\$175)
2022	1 <sup>st</sup> place 3MT Competition, SMU (\$800)
2019, 2022 & 2023	Research Day Dean's Award, SMU (\$250 each)
2018	Outstanding Biology Graduate Student, UCCS

2018	Runner-Up 3MT Co	ompetition, UCCS (\$750)

2017 1-Year Varsity Letter Winner, Track and Field, *UCCS* 

Texas American College of Sports Medicine Major of the Year, SMU
 4-Year Varsity Letter Winner, Cross Country and Track and Field, SMU

## Scholarships and Fellowships

2019, 2022 & 2023 Simmons Graduate Council Grant, *SMU* (\$1500 each) Graduate Student Travel Award, *SMU* (\$750 each)

2018-2023 University PhD Fellow, SMU (\$5000/year)

2018-2022 Fairess Simmons Research Fellowship, SMU (\$10000/year)

2018 Ed Burke Memorial Scholarship, UCCS (\$1500)
 2017 Morgan Berthrong Fellowship, UCCS (\$3000)
 2017 Brad Stoehr Memorial Scholarship, UCCS (\$1000)
 2016 Out-of-State Recruitment Scholarship, UCCS (\$5000)

2015 James A. Sutton Scholarship (\$1000) 2012-2016 Provost Scholar, *SMU* (\$12000/year)

#### RESEARCH SUPPORT

**External** 

June 2022 – American Heart Association Predoctoral Fellowship

May 2023 Alterations to Cardiovascular Control in Females with Multiple Sclerosis at Rest

and During Stress

Total Award: \$32,036 Role: PI

Jan – ACSM Doctoral Research Grant

Dec 2020 Alterations to Muscle Sympathetic Nerve Activity in Multiple Sclerosis

Total Award: \$4,960 Role: PI

Feb 2020 – Texas ACSM Student Research Development Award

Jan 2021 Effects of Long-Term Meditation on Cardiovascular Reactivity

**Total:** \$2,000 **Role:** PI

<u>Internal</u>

Aug 2016 – UCCS Graduate Research Grant

July 2017 Modest Reductions in Skin Temperature After the Onset of a Simulated Hemorrhagic

Challenge Improve LBNP Tolerance Following Exercise Heat Stress

Total Award: \$5,000 Role: PI

#### PEER-REVIEWED MANUSCRIPTS

#### Published

- Kissell CE, Skow RJ, Wakeham DJ, Manferdelli G, Samels M, Fu, Q, Haykowsky MJ, Brazile TL, MacNamara JP, Sarma S, Levine BD, Fadel PJ, Hearon CM. Impaired exercise hemodynamic responses in patients with HFpEF without a vasoconstrictor reserve. *Autonomic Neuroscience*. 2025 Aug 260:103309. doi: 10.1016/j.autneu.2025.103309.
- 2. Taherzadeh Z, **Kissell CE**, Young BE, Alhalimi TA, Stephens BY, Kaur J, Brothers RM, Fadel PJ. Cardiac autonomic function in young, healthy adults: influence of race and sex. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. 2025 May 1;328(5):R611-R618. doi: 10.1152/ajpregu.00288.2024.
- 3. **Kissell CE,** Young BE, Kaur J, Taherzadeh Z, Mohan PC, Vianna LC, Fadel PJ. Sympathetic transduction to blood pressure in patients with chronic kidney disease. Clinical Autonomic Research. 2024 doi: 10.1007/s10286-024-01084-7. Epub ahead of print. PMID: 39542982.
- 4. Young BE, **Kissell CE**, Vranish JR, Stephens BY, Holwerda SW, Fadel PJ. Sex differences in sympathetic transduction in black and white adults: implications for racial disparities in hypertension and cardiovascular disease risk. American Journal of Physiology Heart and Circulatory Physiology 2024 327:3, H672-H680

- 5. **Kissell CE,** Young BE, Jarrard CP, Huang M, Allen DR, Okuda DT, Smith SA, Fadel PJ, Davis SL. Reduced resting beat-to-beat blood pressure variability in females with relapsing-remitting multiple sclerosis. *Multiple Sclerosis and Related Disorders*. 83:105416, 2024. doi: 10.1016/j.msard.2023.105416
- 6. Brown ML, **Kissell CE\***, Huang W, Castro KC, DeMuth WD, Bing EG. COVID-19 and mental health among college students in the southwestern United States. *Journal of American College Health*. 26:1-8, 2023. doi: 10.1080/07448481.2022.2153601
- 7. **Kissell CE\***, Tourula E, Pizzey FK, Batterson PM, Jacobs RA, Pearson J. High-intensity interval exercise reduces tolerance to a simulated haemorrhagic challenge in heat-stressed individuals. *Experimental Physiology*. 106: 212–221, 2021. doi: 10.1113/EP088377
- 8. **Kissell CE\***, Pizzey FK, Batterson PM, Jacobs RA, Pearson J. Small reductions in skin temperature after onset of a simulated hemorrhagic challenge improve tolerance in exercise heat-stressed individuals. *American Journal of Physiology- Regulatory, Integrative and Comparative Physiology.* 315: R539–R546, 2018. doi: 10.1152/ajpregu.00182.2018.
- 9. Borner A, Murray K, **Kissell C\***, Pearson J. Baseline aortic pulse wave velocity is associated with central and peripheral pressor responses during the cold pressor test in healthy subjects. *Physiological Reports* 5: e13357, 2017. doi: 10.14814/phy2.13357.

#### In progress

1. **Kissell CE,** Young BE, Jarrard CP, Huang M, Allen DR, Okuda DT, Smith SA, Fadel PJ, Davis SL. Blunted sympathetic transduction to blood pressure in females with relapsing-remitting multiple sclerosis. *In preparation, anticipated submission Clinical Autonomic Research* June 2025

#### \*published with last name Trotter

#### CONFERENCE ABSTRACTS

- 1. **Kissell CE**, Young BE, Taherzadeh Z, Oldham ZR, Alhalimi TA, Ben Taleb Z, and Fadel PJ. Acute influence of e-cigarette vaping on muscle sympathetic nerve activity and spontaneous sympathetic baroreflex sensitivity in habitual male vapers. *Accepted American Autonomic Society 2025*
- 2. Taherzadeh Z, **Kissell CE**, Alhalimi TA, Oldham ZR, Kaur J and Fadel PJ. Racial differences in cerebral and peripheral vascular function between non-Hispanic Back and White patients with chronic kidney disease. *Accepted American Autonomic Society 2025*
- 3. **Kissell CE**, Skow RJ, Wakeham DJ, Manferdelli G, Sarma S, Fadel PJ, Hearon CM. Patients with HFPEF who exhibit impaired sympathetic vasoconstrictor responsiveness have a blunted exercise hyperemia. Physiology 2025.
- 4. Khatri N, **Kissell CE**, Taherzadeh Z, Alhalimi TA, Velusamy P, Oldham ZR, Young BE, Fadel PJ. Sympathetic-cardiovascular relationships in young black males. Physiology 2025. *Undergraduate Research Award\*\**
- 5. Taherzadeh Z, **Kissell CE**, Alhalimi TA, Young BE, Oldham ZR, Fadel PJ, Kaur J. Augmented resting beat-to-beat blood pressure variability in young, healthy, Hispanic men. Physiology 2025. *Predoctoral Research Award\*\**
- 6. Oldham ZR, **Kissell CE**, Taherzadeh Z, Alhalimi TA, Holwerda SW, Fadel PJ. Influence of type 2 diabetes and central fat distribution on beat-to-beat blood pressure variability. Physiology 2025. *Predoctoral Research Award\*\**
- 7. Velusamy P, Taherzadeh Z, Alhalimi TA, **Kissell CE**, Buckley DJ, Fadel PJ, Trott DW. Increased proportion of CD8+ CCR5+ Eomes<sup>hi</sup> T cells is associated with aortic stiffness in human hypertension. Physiology 2025.
- 8. Patierno J, Champagne PT, Arauz C, **Kissell CE**, Thakur B, Zhang R, Bell KR, Young BE, Pinto SM. Feasibility of obtaining beat-to-beat blood pressure variability in hospitalized patients following moderate to severe traumatic brain injury. Physiatry 2024
- 9. Manferdelli G, Wakeham DJ, Leahy MG, Skow RJ, **Kissell CE**, Brazile TL, MacNamara JP, Fadel PJ, Haykowsky MJ, Levine BD, Sarma S, Hearon CM. The effect of anemia on the mechanism of exercise intolerance in adults with HFpEF. Circulation 2024, V150, Number Suppl 1
- 10. **Kissell CE\***, Young BE, Conley RV, Kaur J, Mohan PC, Fadel PJ. Sympathetic transduction to blood pressure in patients with chronic kidney disease. Physiology 2024, 39:S1 *Young Investigator Research Award*
- 11. Young BE, **Kissell CE**, Conley RV, Vranish J, Credeur D, Holwerda S, Fadel PJ. Spontaneous bursts of sympathetic nerve activity reduce femoral artery compliance in humans. Physiology 2024, 39:S1
- 12. Alhalimi TA, **Kissell CE\***, Velusamy P, Nandadeva D, Fadel PJ. The influence of resting retrograde shear rate on endothelial function as assessed by flow mediated dilation. Physiology 2024 39:S1
- 13. Taherzadeh Z, **Kissell CE**, Alhalimi T, Fadel PJ. Racial differences in cerebral hemodynamics during aerobic exercise. International Journal of Exercise Science: Conference Proceedings 2024, Vol. 2: Iss. 16, Article 116.

- 14. Conley RV, **Kissell CE**, Taherzadeh Z, Dubroy D, Young BE, Taleb ZB, Fadel PJ. Blood pressure variability in young male adult habitual vapers. International Journal of Exercise Science: Conference Proceedings 2024, Vol. 2: Iss. 16, Article 110.
- 15. **Kissell CE\***, Young BE, Jarrard CP, Smith SA, Fadel PJ, Huang M, Davis SL. Spontaneous sympathetic and cardiac baroreflex sensitivity in females with relapsing-remitting multiple sclerosis. Clinical Autonomic Research 2023.
- 16. **Kissell CE\***, Young BE, Jarrard CP, Smith SA, Fadel PJ, Huang M, Davis SL. Pressor and sympathetic responses to graded skeletal muscle metaboreflex activation in females with relapsing-remitting multiple sclerosis. International Journal of Exercise Science: Conference Proceedings 2023, Vol. 2: Iss. 15, Article 114.
- 17. **Kissell CE\***, Young BE, Jarrard CP, Smith SA, Fadel PJ, Huang M, Davis SL. Blunted sympathetic transduction to blood pressure in females with relapsing-remitting multiple sclerosis. Physiology 2023, 38:S1 *Predoctoral Research Award*
- 18. **Kissell CE\***, Jarrard CP, Smith AD, Knoll HD, Young BE, Huang M, Davis SL. Spontaneous cardiovagal baroreflex sensitivity in females with multiple sclerosis. The FASEB Journal 2022, 36:S1.
- 19. Jarrard CP, **Kissell CE\***, Crandall CG, Watso JC, Huang M. Lower blood pressure, but not muscle sympathetic nerve activity, in female compared to male adults during progressive central hypovolemia. The FASEB Journal 2022, 36:S1.
- 20. Adesanya EAO, Matsukawa K, Young BE, **Kissell CE\***, Davis SL, Jarrard CP, Huang M, Moralez G. Central command related changes in anterior cerebral artery blood flow velocity and prefrontal oxygenation at the onset of moderate voluntary hand-grip exercise. The FASEB Journal 2022, 36:S1.
- 21. **Kissell CE\***, Young B, Huang M, Allen D, Fadel P, Davis S. Reduced resting beat-to-beat blood pressure variability in multiple sclerosis. The FASEB Journal 2021, 35:S1.
- 22. **Kissell CE\***, Huang M, Keller DM, Davis SL. Reduced muscle sympathetic nerve activity response to a cold pressor rest in multiple sclerosis. 2493 May 29 10:00 AM 10:15 AM. Medicine & Science in Sports & Exercise 52: 676, 2020.
- 23. **Kissell CE\***, Huang M, Keller DM, Davis SL. Reduced sympathetic baroreflex sensitivity in individuals with multiple sclerosis during the Valsalva maneuver. The FASEB Journal 2020, 34:S1.
- 24. **Kissell CE\***, Pizzey FK, Batterson PM, Jacobs RA, Pearson J. High intensity interval exercise reduces tolerance to a simulated hemorrhagic challenge relative to steady state exercise in heat stressed individuals. The FASEB Journal 2019, 33:S1.
- 25. **Kissell CE\***, Pizzey FK, Batterson PM, Jacobs RA, Pearson J. Modest reductions in skin temperature after the onset of a simulated hemorrhagic challenge improve LBNP tolerance following exercise heat stress. The FASEB Journal 2018, 32:S1.

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\*\* 1st author award

#### TEACHING EXPERIENCE

Large	Lectures

2025 ENS 304 – Physiology of Exercise

Laboratory Teaching

2018-2023 APSM 3411 – Exercise Physiology Lab – 8 semesters 2017-2018 BIOL 4360 – Human Physiology Lab – 2 semesters

2016-2017 BIOL 1060 – Biology of the Modern World Lab – 2 semesters

Guest Lectures

Fall 2023 APSM 3411 – "Human Bioenergetics"

Spring 2019 APSM 3411 – "Data Interpretation"

Fall 2021 APSM 2441 – "Human Digestive System"

Graduate Teaching Assistant

2017 BIOL 3300 – Online Exercise Physiology – *1 semester* 2017 BIOL 4360 – Online Human Physiology Lab – *1 semester* 

#### CURRICULUM DEVELOPMENT

Spring 2020

APSM 3411 - Exercise Physiology Lab - Online Lab

 Responsible for developing curriculum using BioPac BSL-HOME devices and creating effective online lab group collaboration and engagement

#### UNDERGRADUATE STUDENT SUPERVISION

2025- current

Abhidha Kunwar

Sex differences in beat-to-beat blood pressure variability Planned presentation at UTA SURPINT program poster day

Senior

2024- current

Nistha Khatri

Replicating sex differences in sympathetic neural-hemodynamic balance using Modelflow

Undergraduate Award Winner & NCARnation Presentation Award Winner at APS Summit 2025

• Senior applying to medical school

Summer 2024

**Aviral Saxena** 

Impact of brachial blood pressure calibration on beat-to-beat blood pressure variability

Presented UTA SURPINT program poster day

Senior

2023-2024

**Rie Conlev** 

Blood pressure variability in young male adult habitual vapers

Poster Finalist at Texas American College of Sports Medicine Annual Meeting

• Started MS in Biology program fall 2024 at University of Texas at Arlington

2021-2023

Kaitlyn Gearin

Sympatho-excitatory stress in females with multiple sclerosis

Honorable Mention Award at SMU Research Day

• Graduate student

2022-2023

Raelvn Roberson

Pressor responses to isometric handgrip exercise in females with multiple sclerosis

Presented SMU Research Day

Started MS in Management at SMU

2022-current

**Zach Oldham** 

Spontaneous cardiovagal baroreflex sensitivity in females with multiple sclerosis

Presented SMU Research Day

• Started PhD in Kinesiology fall 2024 at UT Arlington – *current graduate mentee* 

2021-2022

Helena Knoll

 $Cardiovagal\ baroreflex\ sensitivity\ during\ a\ Valsalva\ maneuver\ in\ females\ with\ multiple\ sclerosis$ 

Presented SMU Research Day

• Applying to graduate nursing programs

2020-2022

Alexander Smith

Thermal pain thresholds in individuals with multiple sclerosis

Received SMU Engaged Learning Fellowship (\$2000) and Presented SMU Research Day

Medical student at Texas Tech

2020

**Kaitlyn Contreras Castro** 

Effectiveness of a virtual-reality based mindfulness meditation program at reducing symptoms of depression and anxiety in college students

McNair Scholar and co-authored manuscript

• Employed in tech industry

#### **INVITED PRESENTATIONS**

External

July 2024 Robert J. Hardin Translational Cardiovascular Research Symposium

**Session:** Trainee Session

**Title:** Sympathetic transduction to blood pressure in patients with chronic kidney disease

Fort Worth, Texas

April 2024 American Physiological Society Summit

Session: Michael J. Brody Young Investigator Award

**Title:** Sympathetic transduction to blood pressure in patients with chronic kidney disease

Long Beach, California

June 2023 American College of Sports Medicine Annual Meeting and World Congresses

Session: Exercise Pressor Reflex in Health and Disease, Thematic Posters

Title: Sympathetic and pressor responses to graded skeletal muscle metaboreflex activation in

females with relapsing remitting multiple sclerosis

Denver, Colorado

March 2023 Conference of Southern Graduate Schools

**Session:** Graduate 3-Minute Thesis Competition

Title: Alterations to cardiovascular control in females with multiple sclerosis

Tampa, Florida

September 2022 Emory University

Seminar: Emory Renal Physiology & Research Seminar

**Title:** Alterations to cardiovascular control in females with multiple sclerosis

Atlanta, Georgia

June 2020 American College of Sports Medicine Annual Meeting and World Congresses

Session: Care of the Disabled Athlete

**Title:** Reduced muscle sympathetic nerve activity response to a cold pressor test in multiple

sclerosis

Scheduled for San Francisco, CA but cancelled due to COVID-19

Internal

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November 2024 University of Texas at Arlington

Seminar: 10th Annual Research Integrity Symposium

**Title:** Round table discussion – Mentoring in Research and Education

November 2022 **Southern Methodist University** 

**Seminar:** Graduate 3-Minute Thesis Competition

**Title:** Alterations to cardiovascular control in females with multiple sclerosis

April 2022 Southern Methodist University

Seminar: Research on Exercise and Wellness Colloquium Series

**Title:** Spontaneous cardiovagal baroreflex sensitivity in females with multiple sclerosis

April 2021 Southern Methodist University

Seminar: Research on Exercise and Wellness Colloquium Series

**Title:** Reduced beat-to-beat blood pressure variability in multiple sclerosis

April 2019 Southern Methodist University

Seminar: Research on Exercise and Wellness Colloquium Series

Title: High intensity interval exercise reduces tolerance to simulated hemorrhagic challenge

relative to steady state exercise in heat stressed individuals

March 2018 University of Colorado-Colorado Springs

**Seminar:** Graduate 3-Minute Thesis Competition

Title: Lowering skin temperature improved blood loss tolerance following exercise in the heat

#### **EXTRAMURAL EDUCATION**

Fall 2022 **Becoming a Resilient Scientist Series** 

NIH- Office of Intramural Training & Education Southern Methodist University, Dallas, TX

Summer 2022 Integrative Human Cardiovascular Control Course

The Graduate School of Health and Medical Sciences University of Copenhagen, Copenhagen, Denmark

## PROFESSIONAL AND SERVICE ACTIVITIES

External Service	ICE ACTIVITIES
2024	<b>Texas American College of Sports Medicine</b> Abstract & Poster Judge – MS category
2019-2021	<b>Texas American College of Sports Medicine Board of Directors</b> Student Representative
2019-2021	American College of Sports Medicine Student Affairs Committee Texas Chapter Student Representative
<u>University Service</u> 2024	Texas American College of Sports Medicine Quiz Bowl Team Coach of Undergraduate Team - University of Texas at Arlington
2023-2025	<b>Department of Kinesiology Research Days</b> Undergraduate and Master's Poster Judge
2022-2023	Simmons Graduate Council, SMU Secretary
2021-2023	Provost's Graduate Student Advisory Board, SMU Simmons School of Education and Human Development Representative
2020-2023	Moody Graduate School Advisory Board, SMU Simmons School of Education and Human Development Representative
2019-2023	<b>Texas American College of Sports Medicine Quiz Bowl Team</b> Coach of Undergraduate Team - Southern Methodist University
2019-2023	Undergraduate Applied Physiology Club, SMU Staff Founder and Advisor
2019-2022	SMU Wellpower 5k, SMU Race Director and Volunteer Coordinator
2019	Ph.D. Health Insurance Advisory Committee, SMU Graduate Student Representative

2016-2018 Graduate Student Association, UCCS

General Member

Community Service

2023 Meat Fight Inc.

Fundraised \$2000+ for multiple sclerosis research

BMW Dallas Marathon Team Member

2016-2017 Crisis Text Line

Crisis Counselor

Journal Reviewer (ad hoc)

2018-current Medicine & Science in Sport & Exercise

American Journal of Physiology, Reg., Integrative and Comparative Physiology

Journal of Applied Physiology Experimental Physiology Clinical Autonomic Research

Professional Membership

2023-currentAmerican Autonomic Society2021-currentAmerican Heart Association2019-currentAlpha Chi Honor Society

2017-current American College of Sports Medicine 2016-current American Physiological Society

2016-current Texas American College of Sports Medicine