

John Christopher Mizelle

East Carolina University
Department of Kinesiology

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PROFESSIONAL POSITIONS

Associate Professor (permanent tenure conferred August 16, 2021)

2021 – Present

Department of Kinesiology, College of Health and Human Performance, East Carolina University, Greenville, NC

Assistant Professor

2015 – 2021

Department of Kinesiology, College of Health and Human Performance, East Carolina University, Greenville, NC

Adjunct Research Scientist II

2011 – Present

School of Biological Sciences, College of Sciences, Georgia Institute of Technology, Atlanta, GA

Health Research Scientist

2011 – 2015

US Department of Veterans Affairs, Rehabilitation Research and Development Center of Excellence, Atlanta Veterans Affairs Medical Center, Decatur, GA

Post-Doctoral Fellow

2008 – 2010

Cognitive Motor Control Laboratory, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA

Department of Veterans Affairs Pre-Doctoral Fellow

2007 – 2008

Office of Academic Affiliations, US Department of Veterans Affairs
Local Site: Human Motor Performance Laboratory, Baltimore Veterans Affairs Medical Center, Baltimore, MD

Research Assistant

2004 – 2006

Human Movement Disorders Section, Physical Disabilities Branch, National Institutes of Health, Bethesda, MD

Current as of February, 2024

Research Contractor

2004

Human Movement Disorders Section, Physical Disabilities Branch, National Institutes of Health, Bethesda, MD

National Institutes of Health T32 Predoctoral Fellow

2003 – 2007

Department of Physical Therapy and Rehabilitation Science, University of Maryland School of Medicine, Baltimore, MD

Graduate Research Assistant

2001 – 2003

Biomechanics Laboratory, School of Health and Human Performance, East Carolina University, Greenville, NC

Research Assistant

2000 – 2001

Biomechanics Laboratory, School of Health and Human Performance, East Carolina University, Greenville, NC

EDUCATION AND TRAINING

Post-Doctoral Fellowship

2008 – 2011

Georgia Institute of Technology, Atlanta, GA
Cognitive Motor Control Laboratory, School of Applied Physiology
Focus area: Cognitive neuroscience and neuroimaging
Mentor: Dr. Lewis A. Wheaton

Doctor of Philosophy (Ph.D.)

2003 – 2008

University of Maryland, Baltimore, MD
Physical Rehabilitation Science, Neuromotor Control Discipline
Dissertation: “Modulation of Cortical Activity by Visual and Proprioceptive Sensory Demand in Knee Movement.”
Mentors: Drs. Larry Forrester and Mary Rodgers

Master of Arts (M.A.)

2001 – 2003

East Carolina University, Greenville, NC

Exercise Physiology, Biomechanics Discipline
Thesis: “Age-Associated Variability of Muscle Force/EMG Ratios in Three Lower Extremity
Muscles During Locomotion.”
Mentors: Drs. Paul DeVita and Tibor Hortobágyi

Bachelor of Science (B.S.)

1996 – 2000

East Carolina University, Greenville, NC
Exercise Physiology

PRIMARY RESEARCH INTERESTS

- ❖ Neurophysiology and neuroimaging related to understanding, planning and executing complex motor behavior.
- ❖ Neurophysiological, neuroimaging and behavioral correlates of motor control, sensory function, sensorimotor integration, and dynamic force control.
- ❖ Effect of healthy, natural aging on cognitive motor control, motor behavior, sensory function, and sensorimotor integration.
- ❖ Rehabilitation of cognitive motor control and sensorimotor function following physical injury (e.g., amputation, blast), neurological injury or illness (e.g., stroke, apraxia, spinal cord injury, concussion).
- ❖ Effects of limb dominance in producing and understanding complex motor behaviors, and in rehabilitation.
- ❖ Implementation of functional and effective connectivity measures, coupled with graph theory, to model information flow dynamics in cognitive and motor tasks.

SCHOLARSHIP

External / National Grants and Contracts

1. Title: Advanced Neurophysiological Metrics of Cognitive Motor Control in Aging
Role: Principal Investigator

Agency: Brain Research Foundation – 2022 Seed Grant
Date: 05/2022
Amount: \$80,000.00
Status: Letter of intent submitted 11/2021; Not funded.

2. Title: Neurobehavioral biomarkers of sensorimotor function in adolescents with autism spectrum disorder
Role: Principal Investigator
Agency: Simons Foundation
Date: 11/2021
Amount: \$687,789.00
Status: Submitted 05/2021; Not funded

3. Title: Age effects on interregional brain dynamics during action encoding
Role: Principal Investigator
Agency: Whitehall Foundation
Date: 07/2021
Amount: \$225,000.00
Status: Letter of intent submitted 09/2020; Not funded

4. Title: A mobile balance testing laboratory to improve neuromechanical metrics of mTBI
Role: Co-Principal Investigator (Lead PI: Zac Domire, Ph.D.)
Agency: Department of Defense, Defense University Research Instrumentation Program (DURIP)
Date: 12/2020
Amount: \$216,256.00
Status: Submitted, 05/2020; Funded (N00014-21-1-2936); Complete

5. Title: Summer Excellence in Biomedical Research (SEBIR) at ECU
Role: Senior/Key Personnel (Lead PI: Azeez Aileru, Ph.D.)
Agency: National Institutes of Health, National Institute of Neurological Disorders and Stroke, R25
Date: 01/2021
Amount: \$539,995.00
Status: Submitted, 03/2020; Not funded

6. Title: Acquisition of a CAREN virtual reality system for collaborative research
Role: Co-Investigator (Lead PI: Nicholas Murray, Ph.D.)
Agency: National Science Foundation, Major Research Instrumentation
Date: 08/2020
Amount: \$939,756.00
Status: Submitted, 01/2020; Not funded

7. Title: A mobility testing laboratory to improve neuromechanical metrics of

mTBI
Role: Co-Principal Investigator (Lead PI: Zac Domire, Ph.D.)
Agency: Department of Defense, Defense University Research Instrumentation Program (DURIP)
Date: 01/2020
Amount: \$213,877.00
Status: Submitted, 05/2019; Not funded

8. Title: Development of an early diagnosis system for mild cognitive impairment by analyzing noninvasive electrophysiological and behavioral biomarkers with machine-learning technology
Role: Principal Investigator (Lead PI: Sunghan Kim, Ph.D.)
Agency: National Institutes of Health, National Institute of Neurological Disorders and Stroke, R21
Date: 06/2019 – 06/2021
Amount: \$379,544.00
Status: Submitted, 06/2018; Not funded

9. Title: Advanced balance metrics to assess mTBI
Role: Co-Principal Investigator (PI: Zac Domire, Ph.D.)
Agency: Department of Defense, Office of Naval Research
Date: 09/2017 – 09/2019
Amount: \$601,591.00
Status: Submitted, 05/2017; Funded (N00014-17-1-2723)

10. Title: A study of the effects of brain age on cognitive motor control.
Role: Principal Investigator
Agency: Oak Ridge Associated Universities, Ralph E. Powe Junior Faculty Enhancement Award
Date: 07/2016
Amount: \$5,000.00
Status: Submitted 2/2016; Not funded

11. Title: MRI: acquisition of biomedical imaging instrumentation (magnetic resonance imaging scanner) for East Carolina University
Role: Co-Principal Investigator (PI: Zac Domire, Ph.D.)
Agency: National Science Foundation, Major Research Instrumentation
Date: 11/2016 – 10/2019
Amount: \$3,220,520.00
Status: Submitted 1/2016; Not funded

12. Title: Adaptive virtual environments for enhanced training through dynamical system modeling
Role: Co-Investigator (PI: Nick Murray, Ph.D.)
Agency: National Science Foundation
Date: 3/2016 – 2/2019

Amount: \$1,314,191.38
Status: Submitted 9/2015; Not Funded

13. Title: Development and testing of the imitation-based therapeutic system for amputees of the upper extremity (ITSA-U)
Role: Co-Investigator (PI: Lewis Wheaton, Ph.D.)
Agency: Department of Defense, Defense Medical Research and Development Program
Date: 1/2015
Amount: \$464,349.00
Status: Submitted 1/2015; Not Funded

14. Title: Shared equipment grant (MRI-compatible TMS unit)
Role: Co-Principal Investigator (PI: Keith McGregor, Ph.D.)
Agency: Veterans Health Administration, Office of Research and Development (VA-ORD)
Date: 10/2014
Amount: \$164,780.00
Status: Submitted 10/2014; Funded; Complete

15. Title: Deafferentation-induced changes in motor control: a neurobehavioral study
Role: Co-Investigator (PI: Dr. Lewis Wheaton Ph.D.)
Agency: National Institutes of Health, National Institute of Neurological Disorders and Stroke, R01
Date: 2013 – 2018
Amount: \$761,619.00 (Total request: \$1,108,780.00)
Status: Submitted 03/2013; Not funded

16. Title: Sensorimotor control: when task familiarity meets sensory unreliability
Role: Co-Investigator (PI: Dr. Lewis Wheaton Ph.D.)
Agency: National Institutes of Health, National Institute of Neurological Disorders and Stroke, R03
Date: 2012 – 2014
Amount: \$141,384.00
Status: Submitted 03/2012; Not funded

17. Title: Transient deafferentation to improve skilled motor control: a neurobehavioral study
Role: Co-Investigator (PI: Dr. Lewis Wheaton Ph.D.)
Agency: National Institutes of Health, National Institute of Neurological Disorders and Stroke, R01
Date: 2012 – 2017
Amount: \$673,804.00 (Total request: \$998,620.00)
Status: Submitted 03/2012; Not funded

18. Title: Neural mechanisms of visual processing for action knowledge in aging
 Role: Principal Investigator
 Agency: US Department of Veterans Affairs, CDA – 2
 Date: 2012 – 2017
 Amount: \$607,355.00
 Status: Awarded 04/2011; Funded (IRX000739A); Complete
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19. Title: Shared equipment grant (High-density EEG system)
 Role: Co-Investigator (PI: Krish Sathian, M.D., Ph.D.)
 Agency: Veterans Health Administration, Office of Research and Development (VA-ORD)
 Date: 06/2011
 Amount: \$113,191.00
 Status: Submitted 06/2011; Funded; Complete
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20. Title: Neural correlates of object perception and action workshop
 Role: Co-Principal Investigator (Co-PI: Lewis Wheaton, Ph.D.)
 Agency: National Science Foundation
 Date: 08/2009
 Amount: \$26,622.00
 Status: Funded; Complete
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21. Title: Stroke-injured cortical activity and adaptation in lower extremity movement
 Role: Principal Investigator
 Agency: US Department of Veterans Affairs, Office of Academic Affiliations; Pre-Doctoral Research Fellowship
 Date: 2007 – 2008
 Amount: \$34,195.00
 Status: Funded; Complete
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22. Title: Selective activation in the stroke-injured brain by manipulation of task complexity
 Role: Co-Investigator (PI: Lewis Wheaton, Ph.D.)
 Agency: US Department of Veterans Affairs; Research Enhancement Award Program (REAP)
 Date: 2006
 Amount: \$20,000.00
 Status: Funded; Complete
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23. Title: Advanced rehabilitation research training program
 Role: Predoctoral Fellow
 Agency: National Institutes of Health, T32, HD041899-01A1.
 Date: 2003 – 2006
 Amount: \$96,000.00
 Status: Complete

Internal / Local Grants and Contracts

1. Title: Differences in neurological connectivity between right and left limb dominant individuals in implicit motor sequence learning: A proposal for study continuation
Role: Faculty Mentor (PI: Jennifer Painter, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 02/2022
Amount: \$1,461.00
Status: Funded, Complete

2. Title: Differences in neurological connectivity between right and left limb dominant individuals in implicit motor learning
Role: Faculty Mentor (PI: Jennifer Painter, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 09/2021
Amount: \$1,461.00
Status: Funded, Complete

3. Title: Functional connectivity and graph theoretical metrics in motor control
Role: Faculty Mentor (PI: Madison Weeks, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research Mini Award Program
Date: 08/2020
Amount: \$1,000.00
Status: Funded, Complete

4. Title: Brain connectivity in right- and left-handed individuals during motor learning
Role: Faculty Mentor (PI: Sydney Rossback, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 01/2020
Amount: \$1,500.00
Status: Submitted 01/2020; Not funded

5. Title: Project Extension: What is the significance of hand-dominance in motor learning and motor control?
Role: Faculty Mentor (PI: Sydney Rossback, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 10/2019
Amount: \$1941.60
Status: Submitted 09/2019; Not funded

6. Title: What is the significance of hand-dominance in motor learning and motor control?
Role: Faculty Mentor (PI: Sydney Rossback, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 02/2019
Amount: \$1,942.00
Status: Funded, Complete

7. Title: Neural biomarkers of social perspective in road-sharing with cyclists
Role: Co-Principal Investigator (with Dr. Amy Rundio)
Agency: East Carolina University Office of Undergraduate Research
Date: 02/2018
Amount: \$1,300.00
Status: Submitted 02/2018; Not funded

8. Title: Limb dominance effects on sequential motor learning
Role: Faculty Mentor (PI: Margaret (Maggie) Marshall, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activities (URCA) Award Program
Date: 2018
Amount: \$1,400.00
Status: Funded; Complete

9. Title: Aging effects in cognitive motor control: an EEG study
Role: Faculty Mentor (PI: Alexandra Shaver, Undergraduate mentee)
Agency: East Carolina University Undergraduate Research and Creative Activity (URCA) Award Program
Date: 2016 – 2017
Amount: \$1,680.10
Status: Submitted 09/2016; Not funded

10. Title: Faculty start-up funding
Role: Principal Investigator
Agency: East Carolina University
Date: 2015 – 2018
Amount: \$394,062.40
Status: Funded; Complete

11. Title: Recognizing human gestures by context: seeing the difference
Role: Co-Investigator (PI: Nikhilesh Natraj, mentee)
Agency: Georgia State/Georgia Tech Center for Advanced Brain Imaging
Date: 2011 – 2012
Amount: \$10,000.00
Status: Funded; Complete

12. Title: Pantomiming and tool use: a neuroimaging study
Role: Co-Investigator (PI: Lewis Wheaton, Ph.D.)
Agency: Georgia State/Georgia Tech Center for Advanced Brain Imaging
Date: 2010 – 2011
Amount: \$10,000.00
Status: Funded; Complete

Publications and Manuscripts

Total number of published manuscripts: 30
Average journal impact factor: 3.128
Total number of citations: 1166
h-index: 18
i10-index: 24

Original Research Manuscripts

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

2023

1. E. Fenton², J. F. Dick², A. Hayes², R. Castles, J.C. Mizelle, S. Kim. Effects of offline paradigms and feature extraction techniques on performance of motor-imagery brain-computer interface: longitudinal pilot study. *Proceedings of the IEEE Engineering in Medicine and Biology Society*, Jul: 1– 4, 2023.
DOI: 10.1109/EMBC40787.2023.10340368
PMID: 38083086
Journal Impact Factor: Unissued
2. M. Antar², L. Wang², A. Tran², A. T. White², P. Williams², B. Sylcott, J.C. Mizelle, S. Kim. Functional connectivity analysis of visually evoked ERPs for mild cognitive impairment: pilot study. *Proceedings of the IEEE Engineering in Medicine and Biology Society*, Jul: 1 – 4,2023.
DOI: 10.1109/EMBC40787.2023.10339999
PMID: 38082904
Journal Impact Factor: Unissued
3. Gustavo Sandri-Heidner³, Caitlin O’Connell⁴, Zachary J. Domire, Patrick Rider, J.C. Mizelle, Nicholas Murray. Concussed neural signature is substantially different than fatigue neural signature in non-concussed controls. *Journal of Motor Behavior*, 55(3): 302 – 312, 2023.
DOI: 10.1080/00222895.2023.2194852
PMID: 36990462
Journal Impact Factor: 1.40

2021

4. Jessica McDonnell³, Nicholas Murray, Stefan Clemens, Erik Everhart, Sunghan Kim, J. Chris Mizelle. Examination and comparison of theta band connectivity in left- and right-hand dominant individuals throughout a motor skill acquisition. Special issue in *Symmetry* (Symmetry in Cognitive and Behavioural Neuroscience). *Symmetry*, 13(4): 728, 2021.
DOI: 10.3390/sym13040728
PMID: To be issued
Journal Impact Factor: 2.65

2020

5. Austin White², Patrick Williams², J.C. Mizelle, Sunghan Kim. Effects of healthy aging on semantic processing of familiar faces. *Journal of Neurology and Neuroscience*, 11(6): 339, 2020.
DOI: 10.36648/2171-6625.11.1.339
PMID: To be issued
Journal Impact Factor: 1.45
6. Gustavo Sandri Heidner³, Patrick Rider, J.C. Mizelle, Nicholas P. Murray, Caitlin O'Connell⁴, Zachary J. Domire. Anterior-posterior balance perturbation protocol using life-like virtual reality environment. *Journal of Applied Biomechanics*, 36(4): 244 – 248, 2020.
DOI: 10.1123-jab.2019-0130
PMID: 32396870
Journal Impact Factor: 1.367
7. Tyler Whittier³, Rich Willy, Gustavo Sandri Heidner³, Samantha Niland, Caitlin Melton², J.C. Mizelle, and Nicholas Murray. The cognitive demands of gait retraining: an EEG study. *Journal of Motor Behavior*, 52(3): 360 – 371, 2020.
DOI: 10.1080/00222895.2019.8857203
PMID: 31328698
Journal Impact Factor: 1.513

2019

8. Patrick Williams², Austin T. White², Rubi Merino, Sonya Hardin, J.C. Mizelle, Sunghan Kim. Facial Recognition Task for the Classification of Mild Cognitive Impairment with Ensemble Sparse Classifier. *Proceedings of the IEEE Engineering in Medicine and Biology Society*, 2019: 2242 – 2245, 2019.
DOI: 10.1109/EMBC.2019.8857203
PMID: 31946347
Journal Impact Factor: Unissued

2018

9. Matthew T Wittbrodt³, Michael N. Sawka, J.C. Mizelle, Lewis A. Wheaton, Melinda L. Millard-Stafford. Exercise-heat stress with and without water replacement alters brain structures and impairs visuomotor performance. *Physiological Reports*, 6(16): e13805, 2018.

DOI: 10.14814/phy2.13805
PMID: 30136401
Journal Impact Factor: Unissued

10. Menno Veldman³, Natasha Maurits, Inge Zijdewind, Nicola Maffioletti, J.C. Mizelle, Tibor Hortobágyi. Somatosensory electrical stimulation improves skill acquisition, consolidation, and transfer by increasing sensorimotor activity and connectivity. *Journal of Neurophysiology*, 120(1): 281 – 290, 2018.
DOI: 10.1152/jn.00860.2017
PMID: 29641307
Journal Impact Factor: 2.887

11. Daniel Khuman², John Willson, J.C. Mizelle, Paul DeVita. The relationships between physical capacity and biomechanical plasticity in old adults during level and incline walking. *Journal of Biomechanics*, 69: 90 – 96, 2018.
DOI: 10.1016/j.jbiomech.2018.01.006
PMID: 29395227
Journal Impact Factor: 2.907

2017

12. Menno Veldman³, Natasha Maurits, Merle Nijland, Nine Wolters, J.C. Mizelle, Tibor Hortobágyi. Spectral and temporal electroencephalography correlates reveal distinct neural networks for the acquisition, consolidation, and interlimb transfer of motor skills in healthy young adults. *Clinical Neurophysiology*, 129(2): 419 – 430, 2017.
DOI: 10.1016/j.clinph.2017.12.003
PMID: 29304417
Journal Impact Factor: 3.638

2016

13. Williams, Laura⁶, Pirouz, Nikta⁵, Mizelle, J.C., Cusack, William², Kistenberg, Rob, Wheaton, Lewis. Remodeling of cortical activity for motor control following upper limb loss. *Clinical Neurophysiology*, 127(9): 3128 – 3134, 2016.
DOI: 10.1016/j.clinph.2016.07.004
PMID: 27472549
Journal Impact Factor: 3.638
14. Mizelle, J.C., Oparah, Alexis¹, Wheaton, Lewis. Reliability of visual and somatosensory feedback in skilled movement: the role of the cerebellum. *Brain Topography*, 29(1): 27 – 41, 2016.
DOI: 10.1007/s10548-015-0446-2
PMID: 26306810
Journal Impact Factor: 3.323

2015

15. Rachel Kelly³, J.C. Mizelle, Lewis Wheaton. Distinctive laterality of neural networks supports action simulation uniquely in left and right-handed individuals: an EEG coherence study. *Neuropsychologia*, 75: 20 – 29, 2015.
DOI: 10.1016/j.neuropsychologia.2015.05.016
PMID: 26004060
Journal Impact Factor: 3.325

2013

16. Mizelle, J.C., Kelly, Rachel L³. & Wheaton, Lewis A. Ventral encoding of functional affordances: a neural pathway for identifying errors in action. *Brain and Cognition*, 82(3): 274 – 282, 2013.
DOI: 10.1016/j.bandc.2013.05.002
PMID: 23733029
Journal Impact Factor: 2.864

17. Natraj, Nikhilesh³, Poole, Victoria¹, Mizelle, J.C., Flumini, Andrea, Borghi, Anna M., & Wheaton, Lewis A. Context and hand posture modulate the neural dynamics of tool-object perception. *Neuropsychologia*, 51(3): 506 – 519, 2013.
DOI: 10.1016/j.neuropsychologia.2012.12.003
PMID: 23261936
Journal Impact Factor: 3.325

2011

18. Mizelle, J.C., Tang, T¹, Pirouz, N⁵, & Wheaton, Lewis A. Forming tool use representations: A neurophysiological investigation into tool exposure. *Journal of Cognitive Neuroscience*, 23(10): 2920 – 2934, 2011.
DOI: 10.1162/jocn_a_00004
PMID: 21391762
Journal Impact Factor: 3.468

19. Mizelle, J.C. & Wheaton, Lewis A. Testing perceptual limits of functional units: Are there automatic tendencies to associate tools with appropriate objects? *Neuroscience Letters*, 488(1): 92 – 96, 2011.
DOI: 10.1016/j.neulet.2010.11.009
PMID: 21073916
Journal Impact Factor: 2.159

2010

20. Mizelle, J.C. & Wheaton, Lewis A. Why is that hammer in my coffee? A neuroimaging and neurophysiological investigation of contextually-based tool understanding. *Frontiers in Human Neuroscience*, 4: 233, 2010.
DOI: 10.3389/fnhum.2010.00233
PMID: 21228903
Journal Impact Factor: 2.871

21. Mizelle, J.C., Forrester, Larry, Hallett, Mark, & Wheaton, Lewis A. Electroencephalographic reactivity to increased unimodal and bimodal visual and proprioceptive demands in sensorimotor integration. *Experimental Brain Research*, 203(4): 659 – 670, 2010.
DOI: 10.1007/s00221-010-2273-8
PMID: 20445965
Journal Impact Factor: 2.057
22. Mizelle, J.C. & Wheaton, Lewis A. Neural activation for conceptual identification of correct versus incorrect tool-object pairs. *Brain Research*, 1354: 100 – 112, 2010.
DOI: 10.1016/j.brainres.2010.07.059
PMID: 20701898
Journal Impact Factor: 3.125
23. Mizelle, J.C., Forrester, Larry, Hallett, Mark, & Wheaton, Lewis A. Theta frequency band activity and attentional mechanisms in visual and proprioceptive demand. *Experimental Brain Research*, 204(2): 189 – 197, 2010.
DOI: 10.1007/s00221-010-2297-0
PMID: 20532491
Journal Impact Factor: 2.057

2009

24. Brindle, T. J., Mizelle, J.C., Lebidowska, M. K., Miller, J. L., & Stanhope, S. J. Visual and proprioceptive feedback improves knee joint position sense. *Knee Surgery, Sports Traumatology, Arthroscopy*, 17(1): 40 – 47, 2009.
DOI: 10.1007/s00167-008-0638-3
PMID: 18839143
Journal Impact Factor: 3.210

2008

25. Wheaton, L. A., Carpenter, M., Mizelle, J.C., & Forrester, L. Preparatory band specific premotor cortical activity differentiates upper and lower extremity movement. *Experimental Brain Research*, 184(1): 121 – 126, 2008.
DOI: 10.1007/s00221-007-1160-4
PMID: 17955226
Journal Impact Factor: 2.057

2007

26. Wheaton, L. A., Mizelle, J.C., Forrester, L. W., Bai, O., Shibasaki, H., & Macko, R. F. How does the brain respond to unimodal and bimodal sensory demand in movement of the lower extremity? *Experimental Brain Research*, 180(2): 345 – 354, 2007.
DOI: 10.1007/s00221-007-0858-7
PMID: 17256159
Journal Impact Factor: 2.057

2006

27. Mizelle, C., Rodgers, M., & Forrester, L. Bilateral foot center of pressure measures predict hemiparetic gait velocity. *Gait & Posture*, 24(3): 356 – 363, 2006.
DOI: 10.1016/j.gaitpost.2005.11.003
PMID: 16332441
Journal Impact Factor: 2.971

2003

28. Hortobágyi, T., Mizelle, C., Beam, S., & DeVita, P. Old adults perform activities of daily living near their maximal capabilities. *Journals of Gerontology Series A, Biological Sciences and Medical Sciences*, 58(5): M453 – 460, 2003.
DOI: 10.1093/gerona/58.5.M453
PMID: 12730256
Journal Impact Factor: 5.798

Review, Commentary or Editorial Manuscripts

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

2014

29. Mizelle, J.C. & Wheaton, Lewis A. How can we improve our understanding of skillful motor control and apraxia? Insights from studies on "affordances." *Frontiers in Human Neuroscience*, 8: 612, 2014.
DOI: 10.3389/fnhum.2014.00612
PMID: 25152727
Journal Impact Factor: 2.871

2010

30. Mizelle, J.C. & Wheaton, Lewis A. The neuroscience of storing and molding tool action concepts: how "plastic" is grounded cognition? *Frontiers in Psychology*, 1: 195, 2010.
DOI: 10.3389/fpsyg.2010.00195
PMID: 21833254
Journal Impact Factor: 2.323

Manuscripts in Review or Resubmission

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

1. Tyler T. Whittier³, Jessica McDonnell³, Nicholas Murray, J.C. Mizelle. Differing neural strategies in left and right-handed individuals during motor imagery. *Journal of Motor Behavior*.
2. Marwa Antar², Sunghan Kim, J.C. Mizelle, Loren Limbersis. Graph theoretic analysis of the human brain's functional connectivity alteration due to sleep restriction: Pilot study. *Frontiers in Human Neuroscience*.

Manuscripts Under Development or with Submission Pending

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

1. Alexandra Shaver², Nicholas Murray, Christine Habeeb, J.C. Mizelle. The effects of aging on functional brain connectivity in tool-use contextual flexibility. *Experimental Brain Research*.

Invited Presentations and Symposia

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

Total number of invited presentations and symposia: 31

2019

1. J.C. Mizelle. “Neuroscience of Motor Control: What is it and what do you do with it?” Department of Kinesiology, University of North Carolina at Greensboro. Greensboro, NC. January, 2019.

2018

2. Jessica McDonnell³ & J.C. Mizelle. “Neurobehavioral indicators of skill acquisition in left- and right-hand dominant individuals.” Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October, 2018.
3. J.C. Mizelle. “Rethinking neuromotor control and limb dominance.” Motor Behavior Research Network, University of North Carolina at Greensboro. Greensboro, NC. October, 2018.
4. J.C. Mizelle. “Motor control, neuroscience and neuroimaging: Complimentary approaches for the study of human movement.” Kinesiology Colloquium, University of North Carolina at Greensboro. Greensboro, NC. October, 2018.

2017

5. J.C. Mizelle. “Rethinking the neuroscience of limb dominance.” Neuroscience Collaborative Meeting. East Carolina University. Greenville, NC. December, 2017.
6. J.C. Mizelle. “Motor control and neuroscience: Complimentary approaches for the study of human movement.” East Carolina University. Greenville, NC. September, 2017.
7. J.C. Mizelle. “Neuroimaging techniques in motor control: advancing studies of cognitive motor control and sensorimotor integration.” East Carolina University. Greenville, NC. May, 2017.

2016

8. J.C. Mizelle. “Movement neuroscience: Studies of cognitive motor control and sensorimotor integration.” Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October, 2016.

2015

9. J.C. Mizelle. “Misbehaving tools and missing hands: Neuroimaging applications in cognitive motor control and sensorimotor integration.” Louisiana State University. Baton Rouge, LA. January, 2015.
10. J.C. Mizelle. “What a long, strange trip it’s been. An overview of what we’ve learned in cognitive motor control and sensorimotor integration during my time at Georgia Tech.” Georgia Institute of Technology. Atlanta, GA. April, 2015.

2014

11. J.C. Mizelle. “Neuroimaging of praxis motor knowledge: first steps towards building a model for cognitive motor control in brain age and health.” Emory University. Decatur, GA. March, 2014.
12. J.C. Mizelle. “Movement neuroscience: Neuroimaging approaches for the study of cognitive motor control and sensorimotor integration.” Auburn University. Auburn, AL. July, 2014.
13. J.C. Mizelle. “Cognitive motor control and sensorimotor integration: recent neuroimaging findings.” Atlanta VA Medical Center, Rehabilitation Research & Development Center of Excellence 2014 Academic Research Seminars. Decatur, GA. October, 2014.
14. J.C. Mizelle. “Why is that hammer in my coffee, and where is my arm? Using neuroimaging to study cognitive motor control and sensorimotor integration.” East Carolina University. Greenville, NC. November, 2014.

2013

15. J.C. Mizelle. “Insights from neuroimaging into cognitive motor control and sensorimotor integration.” Georgia Regents University. Augusta, GA. March, 2013.
16. J.C. Mizelle. “Using neuroimaging to peek inside the brain: Applications in cognitive motor control and sensorimotor integration.” Georgia State University. Atlanta, GA. May, 2013.

2012

17. J.C. Mizelle. “How neuroscience helps guide our understanding of behavior.” Mercer Senior University. Atlanta, GA. February, 2012.
18. J.C. Mizelle. “Neuroimaging techniques: helping us to understand brain and behavior.” Osher Lifelong Learning Institute at Emory University. Atlanta, GA. July, 2012.

19. J.C. Mizelle. “Applications of functional neuroimaging in human cognitive motor control.” 4th Annual Magnetic Resonance Workshop at Georgia Tech. Atlanta, GA. December, 2012.

2011

20. J.C. Mizelle. “Tool-based motor control: A model for complex motor behavior in health and disease.” Emory University. Decatur, GA. April, 2011.
21. J.C. Mizelle. “Neuroimaging approaches in cognitive motor control: Modeling tool-based behavior.” Osher Lifelong Learning Institute at Emory University. Atlanta, GA. May, 2011.
22. J.C. Mizelle. “Modular selection for action goals (MSAG): A model for complex motor behavior in health and disease.” Medical University of South Carolina. Charleston, SC. May, 2011.

2010

23. J.C. Mizelle. “Neural activation for identifying matching versus mismatching tool-object pairs.” Joint South East Nerve Net and Georgia/South Carolina Neuroscience Consortium Conference. Emory University. Atlanta, GA. March, 2010.
24. J.C. Mizelle. “Neural correlates of tool-object understanding.” Atlanta VA Medical Center, Rehabilitation Research & Development Center of Excellence 2010 Academic Research Seminars. Decatur, GA. April, 2010.
25. J.C. Mizelle. “Application of neurophysiology and neuroimaging in cognitive motor control.” 2010 Mathematics and Science Partnership Program, Center for Education Integrating Science, Mathematics, and Computing. Georgia Institute of Technology. Atlanta, GA. June, 2010.
26. J.C. Mizelle. “Neuroimaging of tools in cognitive motor control: Current applications and future directions.” Georgia Institute of Technology. Atlanta, GA. October, 2010.

2009

27. J.C. Mizelle. “Cortical activation in cognitive motor control: Effects of sensorimotor complexity and contextual information.” University of Maryland School of Medicine. Baltimore, MD. May, 2009.
28. J.C. Mizelle. “Neural correlates of conceptual tool-object relationships.” Neural Correlates of Object Perception and Action Workshop. Atlanta, GA. September, 2009.
29. J.C. Mizelle. “Cortical activation in passively viewing tool-object and environmental image pairs.” Society for Neuroscience. Chicago, IL. October, 2009.

2008

30. J.C. Mizelle. “Modulation of cortical activity by visual and proprioceptive sensory demand in knee movement.” University of Maryland. College Park, MD. May, 2008.

2007

31. J.C. Mizelle. “Modulation of cortical activity by visual and dynamic sensory demand in knee movement.” University of Maryland School of Medicine. Baltimore, MD. September 2007.

Abstracts and Conference Proceedings

Undergraduate student¹; Masters student²; Doctoral student³; Postdoctoral fellow⁴; Doctor of Physical Therapy Student⁵; Masters in Prosthetics and Orthotics Student⁶

Total number of abstracts and conference proceedings: 124

2024

1. Joshua Lawton, J.C. Mizelle, Ryan Wedge, Nicholas Murray. Successfully controlled BCI through Minimal Dry Electrodes. North American Society for the Psychology of Sport and Physical Activity. New Orleans, LA. June 5 – 8, 2024.

2023

2. Madison Weeks², J.C. Mizelle. Neuronal entrainment among athlete dyads: an EEG hyperscanning study. Annual Meeting of the Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October 27, 2023.
– **Madison’s presentation was co-awarded awarded best “Lightning Talk” at ECCSFN 2023.**
3. Nikole B. Galman², Jennifer Painter¹, J.C. Mizelle. Neurological connectivity patterns in implicit motor learning: a comparison of right and left limb dominance. Annual Meeting of the Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October 27, 2023.
4. Nikole B. Galman², Jennifer Painter¹, J.C. Mizelle. Neurological connectivity between right and left limb dominant individual in implicit motor sequence learning. Biomedical Engineering Society. Seattle, WA. October 11 – 14, 2023.
5. Camille Carter¹, Alex Shaver², J.C. Mizelle. Tool use and healthy brain aging. Biomedical Engineering Society. Seattle, WA. October 11 – 14, 2023.
6. E. Fenton², J. F. Dick², A. Hayes², R. Castles, J.C. Mizelle, S. Kim. Effects of offline paradigms and feature extraction techniques on performance of motor-imagery brain-computer interface: longitudinal pilot study. 45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Sydney, Australia. July 24 – 28, 2023.
7. M. Antar², L. Wang², A. Tran², A. T. White², P. Williams², B. Sylcott, J.C. Mizelle, S. Kim. Functional connectivity analysis of visually evoked ERPs for mild cognitive

impairment: pilot study. 45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Sydney, Australia. July 24 – 28, 2023.

8. Jenny Painter¹ & J.C. Mizelle. Differences in Neurological Connectivity Between Right and Left Limb Dominant Individuals in Implicit Motor Sequence Learning. Research and Creative Activity Week. East Carolina University. Greenville, NC. April 3 – 6, 2023.

2022

9. Nicholas Murray, Gustavo Sandri-Heidner³, Caitlin O’Connell⁴, J.C. Mizelle, Patrick Rider, Zachary Domire. Effects of fatigue and mTBI on brain activity functional and effective connectivity during a VR postural challenge. Military Health System Research Symposium. Kissimmee, FL. September 12 – 15, 2022.
10. Lana Wang², Brittany Trotter³, J.C. Mizelle, Sunghan Kim. Functional connectivity analysis of visually evoked ERPs for mild cognitive impairment. 29th annual meeting of the Cognitive Neuroscience Society. San Francisco, CA. April 23 – 26, 2022.
11. Jenny Painter¹ & J.C. Mizelle. Differences in Neurological Connectivity Between Right and Left Limb Dominant Individuals in Implicit Motor Sequence Learning. Research and Creative Activity Week. East Carolina University. Greenville, NC. April 4 – 8, 2022.
 - **Jenny’s presentation was awarded best in her category for RCAW 2022: Biomedical Science Undergraduate Oral Presentation.**
12. Gustavo Sandri Heidner³, Caitlin O’Connell⁴, Zachary J. Domire, Chris Mizelle, Patrick Rider, Nicholas P. Murray. Fatigue neural signature is distinct from concussion. Annual meeting of the Southeastern Chapter of the American College of Sports Medicine. Greenville, SC. February 17-19, 2022.

2021

13. Nikole Galman¹ & J.C. Mizelle. The effects of aging on cognitive motor control. 2021 Meeting of the Biomedical Engineering Society. Orlando, FL. October 6 – 9, 2021.
14. Nikole Galman¹ & J.C. Mizelle. The effects of aging on cognitive motor control. 2021 Meeting of the Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM) Program. Greenville, NC. July 23, 2021.

2020

15. C. O’Connell⁴, G. Sandri Heidner³, J.C. Mizelle, N. Murray, P. Rider, Z. Domire. Virtual time to contact during standing in a moving virtual reality environment improves with time after mild traumatic brain injury. Military Health System Research Symposium. Orlando, FL. August, 2020.
16. Sydney Rossback¹, Cara Mills¹, Emily Whitehead¹, Jordan Kokx¹, J.C. Mizelle. Neurobehavioral Correlates of Implicit Motor Learning in Right- and Left-Hand

Dominant Individuals. Research and Creative Activity Week. East Carolina University. Greenville, NC. April 1, 2020.

17. Brittney Purcell², Callie Herman², Dylan Sampson¹, Ashlyn Warren¹, J.C. Mizelle, Nicholas Murray, Patrick Rider. The Effects of a Distracted Jump Landing Training Protocol on EEG and Lower Extremity EMG. Research and Creative Activity Week. East Carolina University. Greenville, NC. March 30, 2020.

2019

18. Sydney Rossback¹ and J.C. Mizelle. Different Neurobehavioral Strategies in Motor Learning Between Left- and Right-Hand Dominant Individuals. Annual Meeting of the Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October 31, 2019.
 - **Sydney’s presentation received the Larry Means Award for Outstanding Undergraduate Presentation.**
19. Sandri Heidner, Gustavo³, O’Connell, Caitlin⁴, Rider, Patrick, Domire, Zachary, Mizelle, J. C., Murray, Nicholas. No Differences Between Gamma and Beta Corticomuscular Coherence Coefficients During Static Balance Tasks. Annual Meeting of the Eastern Carolina Chapter of the Society for Neuroscience. East Carolina University. Greenville, NC. October 31, 2019.
20. Jonathan Moreno¹, Rachel Grantham², Christine Habeeb & J.C. Mizelle. Modeling brain activity involved in human group dynamics. 2019 Meeting of the Biomedical Engineering Society. Philadelphia, PA. October 16 – 19, 2019.
21. Ashley Moulder², J.C. Mizelle, John Willson, Paul DeVita. Variation in muscle strength decrements and Biomechanical plasticity in older adults during level and incline walking. Combined Annual meeting of the Internationals Society of Biomechanics and the American Society of Biomechanics. Calgary, Alberta, Canada. July 31 – August 4, 2019.
22. C. O’Connell⁴, G. Sandri Heidner³, N. Murray, J.C. Mizelle, P. Rider, Z. Domire. Impact of reduced plantar sensation on balance control. Combined Annual meeting of the Internationals Society of Biomechanics and the American Society of Biomechanics. Calgary, Alberta, Canada. July 31 – August 4, 2019.
23. Domire, Z. J., O’Connell, C., Sandri Heidner, G., Mizelle, J.C., Murray, N. P., & Rider, P. M. Effect of impaired balance by fatigue, reduced plantar sensation and mild traumatic brain injury. Military Health System Research Symposium. Kissimmee, FL. August, 2019.
24. Patrick Williams², Austin T. White², Rubi Merino², Sonya Hardin, J.C. Mizelle, Sunghan Kim. Facial Recognition Task for the Classification of Mild Cognitive Impairment with Ensemble Sparse Classifier. 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Berlin, Germany. July 23 – 27, 2019.

25. Wang, L., Collier, D. N., Mizelle, J. C., & Kim, S. Eletrophysiological monitoring of cognitive development disturbance among adolescents and children with insulin resistance and sleep apnea. 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Berlin, Germany. July 23 – 27, 2019.
26. Jonathan Moreno¹, Rachel Grantham¹, Christine Habeeb & J.C. Mizelle. Modeling brain activity involved in human group dynamics. 2019 Meeting of the Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM) Program. Greenville, NC. July 26, 2019.
27. Jessica McDonnell³ and J.C. Mizelle. Connectivity patterns in left- and right-hand dominant population when acquiring a skill. North American Society for the Psychology of Sport and Physical Activity. Baltimore, MD. June 6 – 8, 2019.
 - **Published in the *Journal of Sport and Exercise Science*, 41 (supplement 47).**
28. Matthew T. Wittbrodt³, Michael N. Sawka, J. C. Mizelle, Regan R. Lawson³, Lewis A. Wheaton, Mindy L. Millard-Stafford. Dehydration impairs accuracy and increases brain activity during rhythmic bimanual choice reaction time task. Annual meeting of the American College of Sports Medicine. Orlando, FL. May 28 – Jun 01, 2019.
29. Gustavo Sandri Heidner³, Caitlin O'Connell⁴, Nicholas Murray, J.C. Mizelle, Patrick Rider, Zachary J. Domire. Fatigue increases center of pressure sway. Annual meeting of the American College of Sports Medicine. Orlando, FL. May 28 – Jun 01, 2019.
30. Domire, Z. J., O'Connell, C., Sandri Heidner, G., Murray, N. P., Mizelle, J.C., & Rider, P. M. Impact of reduced plantar sensation on balance control. Annual meeting of the American College of Sports Medicine. Orlando, FL. May 28 – Jun 01, 2019.
31. Rachel Grantham¹, C. Habeeb, J.C. Mizelle. An examination of potential neurobiological differences in exercisers and non-exercisers. 2019 East Carolina University Research and Creative Activity Week. Greenville, NC. April 1 – April 5, 2019.
32. Ashley Moulder², Chris Mizelle, John Willson, Paul DeVita. Hip and ankle muscle strengths may partially explain biomechanical plasticity in old adults. University of North Carolina – Chapel Hill 2018 Human Movement Science and Biomechanics Symposium. Chapel Hill, NC. March 31, 2019.
33. Ashley Moulder², Chris Mizelle, John Willson, Paul DeVita. Variation in strength decrement of lower extremity muscle groups and biomechanical plasticity in older adults. Mid-South Biomechanics Conference. Memphis, TN. February 21 – 22, 2019.
34. G. Sandri Heidner³, C. O'Connell⁴, N. Murray, J.C. Mizelle, Z. Domire. Fatigue increases center of pressure sway. Annual meeting of the Southeastern Chapter of the American College of Sports Medicine. Greenville, SC. February 14 – 16, 2019.

35. AM Moulder², J.C. Mizelle, JD Willson, P DeVita. Joint work redistribution from level to uphill walking in older adults. Annual meeting of the Southeastern Chapter of the American College of Sports Medicine. Greenville, SC. February 14 – 16, 2019.

2018

36. Natalie Dottle¹, Margaret Marshall¹ & J.C. Mizelle. Modeling cortical dynamics of limb dominance in sequential motor learning. 2018 Meeting of the Biomedical Engineering Society. Atlanta, GA. October 17 – 20, 2018.
37. Caitlin O’Connell⁴, Gustavo Sandri Heidner³, J.C. Mizelle, Nicholas Murray, Patrick Rider, Zachary Domire. Composite balance score to detect sandbagging during baseline balance tests. Military Health System Research Symposium (MHSRS). Kissimmee, FL. August 20 – 23, 2018.
38. Caitlin O’Connell⁴, Gustavo Sandri Heidner³, J.C. Mizelle, Nicholas Murray, Patrick Rider, Zachary Domire. Protocol for realistic virtual reality environment that perturbs balance. 2018 Meeting of the American Society of Biomechanics. Rochester, MN. August 8 – 11, 2018.
39. Gustavo Sandri Heidner³, Caitlin O’Connell⁴, J.C. Mizelle, Patrick Rider, Zachary Domire, Nicholas Murray. Rambling-Trembling decomposition is not sensitive to intentional poor balance. 2018 Meeting of the American Society of Biomechanics. Rochester, MN. August 8 – 11, 2018.
- **Mentee (Heidner) was the recipient of a refereed ASB sponsored Travel Award for his work.**
40. Natalie Dottle¹, Margaret Marshall¹ & J.C. Mizelle. Modeling cortical dynamics of limb dominance in sequential motor learning. 2018 Meeting of the Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM) Program. Greenville, NC. July 20, 2018.
41. Caitlin O’Connell⁴, Gustavo Sandri Heidner³, Chris Mizelle, Nicholas Murray, Patrick Rider, Zachary Domire. Detecting sandbagging during balance testing using approximate entropy. 2018 Meeting of the World Congress of Biomechanics. Dublin, Ireland. July 8 – 12, 2018.
42. Alexandra A. Shaver², Kevin A. Hooks², Jessica L. McDonnell³, Tyler J. Whittier², J.C. Mizelle. Functional and effective connectivity measures in cognitive motor control in everyday tool-use. University of North Carolina – Chapel Hill 2018 Human Movement Science and Biomechanics Symposium. Chapel Hill, NC. March 9, 2018.
43. Alexandra A. Shaver², Kevin A. Hooks², Jessica Lynn McDonnell³, Tyler J. Whittier³, J.C. Mizelle. Cognitive motor control: the event related potential of tool-use. 2018 East Carolina University Research and Creative Activity Week. Greenville, NC. March 26 – April 2, 2018.

44. Jessica L. McDonnell³, J.C. Mizelle. It's not only your classroom, learning is chaotic. 2018 East Carolina University Research and Creative Activity Week. Greenville, NC. March 26 – April 2, 2018.

2017

45. Jessica L. McDonnell³, J.C. Mizelle, Timothy Derrick, Stacey Meardon. Movement dynamics associated with response strategies in running. 47th Annual Meeting of the Society for Neuroscience. Washington, DC. November 11 – 16, 2017.
46. Tyler T. Whittier³, J.C. Mizelle, Nicholas P. Murray. Left-handed individuals rely more on premotor areas of the brain during implicit motor imagery than right-handed individuals. 47th Annual Meeting of the Society for Neuroscience. Washington, DC. November 11 – 16, 2017.
47. Katalina Aguilar¹, J.C. Mizelle. Using EEG to develop cortical network modeling during tool-related action observation. 2017 Meeting of the Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM) Program. Greenville, NC. July 28, 2017.
48. Alexandra A. Shaver², Jessica McDonnell³, Kevin Hooks², Natalie Salter¹, J.C. Mizelle. The effects of aging on cognitive motor control in everyday tool use. 2017 Undergraduate Research Opportunities Program, East Carolina University, Greenville, NC. April 21, 2017.
49. Natalie Salter¹, Kevin Hooks², Jessica McDonnell³, Alex A. Shaver², J.C. Mizelle. A research study on the effects of verbal motivation on maximal effort force generation and related brain activation. 2017 Undergraduate Research Opportunities Program, East Carolina University, Greenville, NC. April 21, 2017.
50. Allison Beachum¹, Tyler Whittier², J.C. Mizelle. An analysis of neural pathways in left-handed individuals. 2017 Undergraduate Research Opportunities Program, East Carolina University, Greenville, NC. April 21, 2017.
51. Menno Veldman³, Natasha Maurits, J.C. Mizelle, Tibor Hortobagyi. Somatosensory electrical stimulation induces skill acquisition and consolidation by enhancing sensorimotor integration. Progress in Motor Control XI. Miami, FL. July 19-22, 2017.
– **Mentee (Veldman) was the recipient of the Young Investigator Travel Award for his work.**
52. Kevin A. Hooks², Jessica L. McDonnell³, Alexandra A. Shaver², Natalie J. Salter¹, J.C. Mizelle. The role of handedness and task complexity on visuospatial processing and sensorimotor integration. University of North Carolina – Chapel Hill 2017 Human Movement Science and Biomechanics Symposium. Chapel Hill, NC. March 31, 2017.
53. Victoria Price², Daniel J. Kuhman², Stacey Meardon, J.C. Mizelle, Paul DeVita. Effects of surface stiffness on knee joint loads during running. University of North Carolina –

Chapel Hill 2017 Human Movement Science and Biomechanics Symposium. Chapel Hill, NC. March 31, 2017.

54. Daniel Kuhman², John Wilson, J.C. Mizelle, Paul DeVita. How does physical capacity in old adults impact age-associated biomechanical plasticity during level and incline walking? University of North Carolina – Chapel Hill 2017 Human Movement Science and Biomechanics Symposium. Chapel Hill, NC. March 31, 2017.
55. Victoria A. Price², Daniel J. Kuhman², Stacey Meardon, J.C. Mizelle, Paul DeVita. Surface stiffness and knee joint load effects while running. Annual Meeting of the American Society for Biomechanics. Boulder, CO. August 8 – 11, 2017.
56. Daniel Kuhman², John Wilson, J.C. Mizelle, Paul DeVita. The relationships between physical capacity and biomechanical plasticity in old adults during level and incline walking. Annual Meeting of the American Society for Biomechanics. Boulder, CO. August 8 – 11, 2017.
57. Daniel Kuhman², Victoria Price², Blake Schnurr, Dyshone Jordan-Brown, John Wilson, J.C. Mizelle, Paul DeVita. High Capacity older adults exhibit more biomechanical plasticity than low capacity older adults. Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30 – June 3, 2017.
58. M.P. Veldman³, N.M. Maurits, J.C. Mizelle and T. Hortobágyi. Brain network adaptations evidenced by changes in spectral electroencephalography estimates correlate with acquisition and consolidation of a manual visuomotor skill. Annual Meeting of the Society for the Neural Control of Movement. Dublin, Ireland. May 2 – 5, 2017.
59. Matthew T. Wittbrodt³, Michael N. Sawka, J.C. Mizelle, Lewis A. Wheaton and Mindy L. Millard Stafford. Hypohydration alters brain morphology and function while impairing fine motor performance. 2017 Annual Meeting for Experimental Biology. Chicago, IL. April 22 – 26, 2017.
 - **Mentee (Wittbrodt) was the recipient of the Exercise and Environmental Physiology Section’s Military Physiology Predoctoral Research Award.**
60. Daniel Kuhman³, John Willson, J.C. Mizelle, Paul DeVita. Age-associated biomechanical plasticity is greater in high-capacity compared to low-capacity old adults during level walking at self-selected speeds. 017 East Carolina University Research and Creative Activity Week. Greenville, NC. April 3 – 7, 2017.
61. Christine A. Godwin, Sunya Fareed, J.C. Mizelle and Eric H. Schumacher. Context-dependent neural responses in insula and amygdala when viewing affective animal videos. 2017 Annual Meeting of the Cognitive Neuroscience Society. San Francisco, CA. March 25 – 28, 2017.

2016

62. Temilade Aladeniyi¹ & J.C. Mizelle. Neural Networks and Hand Dominance. 2016 Meeting of the Biomedical Engineering Society. Minneapolis, MN. October 5 – 8, 2016.
63. Temilade Aladeniyi¹, Kevin Hooks² & J.C. Mizelle. Neural Networks and Hand Dominance. 2016 Meeting of the Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM) Program. Greenville, NC. July 29, 2016.
64. Matthew T. Wittbrodt³, J.C. Mizelle, Lewis A. Wheaton, Michael N. Sawka, FACSM, Minoru Shinohara, FACSM, Mindy L. Millard-Stafford, FACSM. Impact of hypohydration and exercise heat-stress on brain structure in men and women. Annual Meeting of the American College of Sports Medicine. San Diego, CA. May 31 – June 4, 2016.
- **Published in *Medicine and Science in Sports and Exercise* 48 (5 supplement 1), 566 – 567.**

2015

65. Nikhilesh Natraj³, Sumia Basunia², J.C. Mizelle & Lewis A. Wheaton. The role of action contexts on the neural substrates underlying gesture recognition. 45th Annual Meeting of the Society for Neuroscience. Chicago, IL. October 17 – 21, 2015.
66. Kelly Regnery¹, Nikhilesh Natraj³, Ted Oh³, Boris Prilutsky, Lewis A. Wheaton & J.C. Mizelle. Proximal and distal coding of sensorimotor parameters in the control of arm movements. 45th Annual Meeting of the Society for Neuroscience. Chicago, IL. October 17 – 21, 2015.
67. Matthew T. Wittbrodt³, J.C. Mizelle, Lewis A. Wheaton, Michael N. Sawka, FACSM, Minoru Shinohara, FACSM, Mindy L. Millard-Stafford, FACSM. Exercise-induced Dehydration Alters Brain Activation during a Cognitive-Motor Task. Annual Meeting of the American College of Sports Medicine. San Diego, CA. May 26-30, 2015.
- **Published in *Medicine and Science in Sports and Exercise* 47 (5 supplement 1), 501.**
68. Williams, L.⁶, Pirouz, N.⁶, Mizelle, C., Kisterberg, R., Wheaton, L. Dominant vs. non-dominant hand influence on the neurophysiology of upper extremity praxis motor control. 41st Academy Annual Meeting & Scientific Symposium, American Academy of Orthotists and Prosthetists. New Orleans, LA. February 18-21, 2015.

2014

69. Rachel Kelly³, J. C. Mizelle, and Lewis A. Wheaton. Effects of handedness and perspective during action recognition: towards a neurophysiological model of action simulation. 2014 Georgia Tech Research and Innovation Conference. Atlanta, GA. March 18, 2014.
70. J. C. Mizelle and Lewis A. Wheaton. Applying “unusual” action contexts to familiar tools: How tools adopt new functions. 44th Annual Meeting of the Society for Neuroscience. Washington, DC. November 15 – 19, 2014.

2013

71. J.C. Mizelle, Rachel Kelly³, Lewis A. Wheaton. A role for ventral stream brain areas in understanding errors in tool manipulation. 43rd Annual Meeting of the Society for Neuroscience. San Diego, CA. November 9 – 13, 2013.
72. Rachel Kelly³, C. Mizelle, Lewis Wheaton. Handedness and Perspective during action recognition: Towards a neurophysiological model of action simulation. 43rd Annual Meeting of the Society for Neuroscience. San Diego, CA. November 9 – 13, 2013.
73. L. A. Wheaton, R. T. Byrd⁵, J. Cohen⁵, L. Ebron⁵, D. Tomeck⁵, D. Lee³, K. Neary¹, J. Mizelle, D. Backus. Effects of transient unilateral ischemic nerve block on bilateral motor control: A longitudinal study. 43rd Annual Meeting of the Society for Neuroscience. San Diego, CA. November 9 – 13, 2013.
74. Richard T. Byrd⁵, Jordan A. Cohen⁵, Lena D. Ebron⁵, Danielle Tomeck⁵, Dylan Lee³, Kelly E. Neary¹, J.C. Mizelle, Deborah Backus, Lewis A. Wheaton. Unilateral ischemic nerve block effects on bilateral motor control. Emory University Department of Physical Therapy Annual Research Day. Atlanta, GA. May 2, 2013.
75. Rachel Kelly³, J.C. Mizelle, Lewis Wheaton. Looking at understanding the influence of perspective on handedness in right-handed subjects. 20th Annual Meeting of the Cognitive Neuroscience Society. San Francisco, CA. April 13 – 16, 2013.
76. Rachel Kelly³, J.C. Mizelle, Lewis Wheaton. Understanding the influence of perspective on handedness in action recognition. 2013 Georgia Tech Research and Innovation Conference. Atlanta, GA. February 12, 2013.

2012

77. J.C. Mizelle, Alexis Oparah¹ and Lewis Wheaton. Visual and Somatosensory Reliability in Tool-Use Motor Control. 42nd Annual Meeting of the Society for Neuroscience. New Orleans, LA. October 12 – 17, 2012.
78. Freddy Kamps¹, Lewis Wheaton, J.C. Mizelle. Ischemic deafferentation alters the neural network for action understanding. MidBrains: The Undergraduate Neuroscience Conference of the Northwest. Northfield, MN. October 6, 2012.
79. Freddy Kamps¹, Lewis Wheaton, J.C. Mizelle. The role of somatosensory feedback in action understanding. 2012 Center for Behavioral Neuroscience BRAIN Poster Symposium. Atlanta, GA. August 1, 2012.
80. Rachel Kelly³, J.C. Mizelle, Lewis Wheaton. The role of perspective and handedness in action recognition. 2012 Georgia Tech Research and Innovation Conference. Atlanta, GA. February 7, 2012.

2011

81. Rachel Kelly³, J.C. Mizelle and Lewis Wheaton. Neuroimaging analysis of the functional understanding of tools. 41st Annual Meeting of the Society for Neuroscience. Washington, DC. November 16 – 20, 2011.
82. Nikhilesh Natraj³, Victoria N Poole¹, J.C. Mizelle, Andrea Flumini, Anna Borghi and Lewis Wheaton. Contextual information shapes the perception of a human hand-object interaction. 41st Annual Meeting of the Society for Neuroscience. Washington, DC. November 16 – 20, 2011.
83. J.C. Mizelle, Rachel Kelly³ and Lewis Wheaton. Understanding novel tool use contexts. 41st Annual Meeting of the Society for Neuroscience. Washington, DC. November 16 – 20, 2011.
84. Alexis Oparah¹, J.C. Mizelle, Lewis Wheaton. The role of sensory feedback in movement: a functional MRI study. 2011 Center for Behavioral Neuroscience BRAIN Poster Symposium. Atlanta, GA. July 27, 2011.
85. Nikhilesh Natraj³, Victoria N Poole¹, J.C. Mizelle, Andrea Flumini, Anna Borghi and Lewis Wheaton. Context and hand posture modulate the neural dynamics of tool-object perception. 18th Annual Conference of the Cognitive Neuroscience Society. San Francisco, CA. April 2 – 5, 2011.
86. Rachel Kelly³, J. Chris Mizelle, Lewis A. Wheaton. Neuroimaging analysis of functional tool understanding. 2011 Georgia Tech Research and Innovation Conference. Atlanta, GA. February 7, 2011.
87. Nikhilesh Natraj³, Victoria N Poole¹, J.C. Mizelle, Andrea Flumini, Anna Borghi and Lewis Wheaton. Context modulates the neural system for tool perception. 2011 Georgia Tech Research and Innovation Conference. Atlanta, GA. February 7, 2011.
88. William Cusack³, Nikta Pirouz⁶, Chris Mizelle, Robert Kistenberg, Lewis Wheaton. Neural correlates of tool use in upper extremity amputees. 2011 Georgia Tech Research and Innovation Conference. Atlanta, GA. February 7, 2011.
89. Nikhilesh Natraj³, Victoria N Poole¹, J.C. Mizelle, Andrea Flumini, Anna Borghi and Lewis Wheaton. Context and hand posture modulate the neural dynamics of tool-object perception. 12th Annual Conference at the W.M. Keck Center for Behavioral Biology. North Carolina State University. Raleigh, NC. January 28, 2011.
 – **Mentee (Natraj) received a travel award for this abstract.**

2010

90. Nikta Pirouz⁶, Chris Mizelle, Robert Kistenberg, and Lewis Wheaton. Tool use in upper extremity amputees. 36th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists. Chicago, IL. March 24 – 27, 2010.

91. J.C. Mizelle and Lewis A. Wheaton. Neural activation for identifying matching versus mismatching tool-object pairs. Joint South East Nerve Net and Georgia/South Carolina Neuroscience Consortium Conference. Atlanta, GA. March 5 – 7, 2010.

92. Nikhilesh Natraj³, J.C. Mizelle and Lewis Wheaton. Unbiased clustering of true neural components to reveal task specific brain activations. Joint South East Nerve Net and Georgia/South Carolina Neuroscience Consortium Conference. Atlanta, GA. March 5 – 7, 2010.

- **Published in *Front. Neurosci. Conference Abstract: 2010 South East Nerve Net (SENN) and Georgia/South Carolina Neuroscience Consortium (GASCNC) conferences.***

2009

93. J.C. Mizelle and Lewis A. Wheaton. Neural activation for identification of correct versus incorrect tool-object pairs. 39th Annual Meeting of the Society for Neuroscience. Chicago, IL. October 17 – 21, 2009.

94. Lewis A. Wheaton and J.C. Mizelle. Cortical activation in passively viewing tool-object and environmental image pairs. 39th Annual Meeting of the Society for Neuroscience. Chicago, IL. October 17 – 21, 2009.

95. Teresa Tang¹, J.C. Mizelle, Lewis Wheaton. Does video training promote left parietal storage of tool representation? 2009 Center for Behavioral Neuroscience BRAIN Poster Symposium. Atlanta, GA. July 29, 2009.

2008

96. Ira Khanna, T.N. Judkins, J.C. Mizelle, L. Forrester, R. Macko, L.A. Wheaton. Differences in prefrontal theta activity during ankle movement under variable visual and proprioceptive feedback. 38th Annual Meeting of the Society for Neuroscience. Washington, DC. November 15 – 19, 2008.

97. J.C. Mizelle, L. Forrester, L.A. Wheaton. Movement related attentional demands are mediated by prefrontal and frontal midline theta activity. 38th Annual Meeting of the Society for Neuroscience. Washington, DC. November 15 – 19, 2008.

2007

98. Timothy N. Judkins, Lewis A. Wheaton, J.C. Mizelle, Hermano I. Krebs, Richard F. Macko, Larry W. Forrester. Effect of visual uncertainty on adaptation to ankle perturbations. 32nd Annual Meeting of the American Society for Biomechanics. Palo Alto, CA. August 22 – 25, 2007.

99. J.C. Mizelle, M.A., Lewis A. Wheaton, Ph.D., Richard F. Macko, Larry W. Forrester, Ph.D. Sensorimotor complexity differentially affects cortical activity during knee movement. 14th Annual Meeting of the Cognitive Neuroscience Society. New York, NY. May 5 – 8, 2007.

100. Lewis A. Wheaton, Timothy N. Judkins, J.C. Mizelle, Richard F. Macko, Larry W. Forrester. Motor behavioral and neurophysiological effects of unexpected perturbations to ankle movements. 14th Annual Meeting of the Cognitive Neuroscience Society. New York, NY. May 5 – 8, 2007.
101. Timothy Judkins, Lewis Wheaton, J.C. Mizelle, Richard Macko, Larry Forrester. Visual and proprioceptive feedback affects adaptation to perturbed ankle movements. 14th Annual Meeting of the Cognitive Neuroscience Society. New York, NY. May 5 – 8, 2007.
102. Timothy N. Judkins, Lewis A. Wheaton, J.C. Mizelle, Hermano I. Krebs, Richard F. Macko, and Larry W. Forrester. Sensorimotor adaptation to ankle perturbations. Northeast American Society of Biomechanics Conference. College Park, MD. March 30 – 31, 2007.

2006

103. Lewis A. Wheaton, Ph.D., Chris Mizelle, Rich Macko, M.D. Late movement related activations differentiate wrist and ankle movements. 28th International Congress of Clinical Neurophysiology. Edinburgh, Scotland. September 10 – 14, 2006.
 - **Published in *Clinical Neurophysiology, Volume 117, Supplement 1, 143.***
104. Chris Mizelle, Timothy J. Brindle, Steven Stanhope. Proprioceptive error can be reduced with training. 30th Annual Meeting of the American Society of Biomechanics. Blacksburg, VA. September 7 – 9, 2006.
105. Chris Mizelle, Lewis A. Wheaton, Rich Macko, Larry Forrester. Knee movement related cortical potentials discriminate task complexity. Baltimore Veterans Affairs Medical Center Annual Research Day. Baltimore, MD. May, 2006.

2005

106. C. Mizelle, T. Brindle, J. McLucas, S. Stanhope. Behavioral response to passive proprioceptive training. Biennial NCMRR Training Workshop. Rockville, MD. December 5 – 6, 2005.
107. T.J. Brindle, J.C. Mizelle, J.L. McLucas, S.J. Stanhope. A pilot study to determine the influence of gastrocnemius muscle length on knee movement sense. 35th Annual Meeting of the Society for Neuroscience. Washington, DC. November 12 – 16, 2005.
108. Chris Mizelle, Larry Forrester, Mary Rodgers. Center of pressure measures predict hemiparetic gait velocity. 20th Congress of the International Society of Biomechanics and the 29th Annual Meeting of the American Society of Biomechanics. Cleveland, OH. July 31 – August 5, 2005.

2004

109. L. Forrester, PhD (Dept. of Physical Therapy and Rehabilitation Science, UMSOM, Baltimore, MD), M. Harris-Love, MPT, C. Mizelle, MA, R. Macko, MD, M. Rodgers, PT, PhD. Foot center of pressure measures characterize hemiparetic gait asymmetry in individuals with chronic stroke. Joint Meeting of the American Congress of Rehabilitation Medicine and American Society of Neurological Rehabilitation. Ponte Vedra Beach, FL. September 9 – 12, 2004.
110. Mary M. Rodgers, Larry Forrester, Christopher Mizelle, Michelle Harris-Love. Effects of gait velocity on center of pressure symmetry measures in individuals with stroke. 28th Meeting of the American Society of Biomechanics. Portland, OR. September 8 – 11, 2004.
111. Powell, D., Kemble, D., Mizelle, C., Westerkamp, L., Rigling, S., DeVita, P. & Hortobágyi, T. Muscle activation patterns are different in old and young adults when gait is perturbed by an inertial load. 32nd Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Atlanta, GA. January 29 – 31, 2004.

2003

112. Hortobágyi, T., Smith, K., Jolla, J., Mizelle, C., Westerkamp, L. & DeVita, P. Magnitude of postural sway does not predict decline in mobility with age. 50th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 28 – 31, 2003.
– **Published in *Medicine and Science in Sports and Exercise (suppl.)* 35, s274.**
113. DeVita, P., Jolla, J., Smith, K., Mizelle, C., Westerkamp, L. & Hortobágyi, T. Age associated gait adaptations occur first at the knee and later at the hip. 50th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 28 – 31, 2003.
– **Published in *Medicine and Science in Sports and Exercise (suppl.)* 35, s252.**
114. Mizelle, C., DeVita, P., Jolla, J., Smith, K., Westerkamp, L., Powell, D., Hortobágyi, T. Older adults have altered muscle force/muscle EMG ratios in the lower extremity during level walking. 31st Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Atlanta, GA. January 30 – February 1, 2003
115. Powell, D., Jolla, J., Smith, K., Westerkamp, L., Mizelle, C., DeVita, P., FACSM, Hortobágyi, T., FACSM. The relationship between muscle EMG coactivity during single – and multi – joint tasks in young and old adults. 31st Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Atlanta, GA. January 30 – February 1, 2003.
116. Westerkamp, L., DeVita, P., Beam, S., Moody, J., Jolla, J., Smith, K., Mizelle, C., and Hortobágyi, T. Impaired muscle balance in patients with knee OA. 31st Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Atlanta, GA. January 30 – February 1, 2003.

2002

117. Mizelle, C., DeVita, P., Jolla, J., Smith, K., Westerkamp, L., Powell, D., Hortobágyi, T. Age related variation of muscle force/EMG ratios in three lower extremity muscles during level walking. Sixth Annual Symposium of Neuroscience Research at East Carolina University: Today and Tomorrow. Greenville, NC. October 23, 2002.
118. Westerkamp, L., DeVita, P., Beam, S., Moody, J., Jolla, J., Smith, K., Mizelle, C., and Hortobágyi, T. Abnormal antagonist muscle coactivity in patients with knee osteoarthritis. Sixth Annual Symposium of Neuroscience Research at East Carolina University: Today and Tomorrow. Greenville, NC. October 23, 2002.
119. DeVita, P., Moody, J., Beam, S., Jolla, J., Smith, K., Mizelle, C., Garry, J. & Hortobágyi, T. Neuromuscular responses to knee osteoarthritis during stairway locomotion. 4th World Congress of Biomechanics. Calgary, Alberta, Canada. August 3 – 9, 2002.
120. Mizelle, C., DeVita, P., Beam, S., Vestal, A., Jolla, J., Smith, K. & Hortobágyi, T. Older adults show an increase in relative effort during activities of daily living. 49th Annual Meeting of the American College of Sports Medicine. St. Louis, MO. May 29 – June 1, 2002.
 – **Published in *Medicine and Science in Sports and Exercise (suppl.)* 34, s77.**
121. Mizelle, C., DeVita, P., Beam, S., Vestal, A., Jolla, J., Smith, K., & Hortobágyi, T. Older adults use greater relative effort for stair ascent compared to young adults. 10th Annual Graduate Student Research Day, Brody School of Medicine at East Carolina University. Greenville, NC. April 12, 2002.
122. Mizelle, C., DeVita, P., Beam, S., Vestal, A., Jolla, J., Smith, K. & Hortobágyi, T. Older adults use greater relative effort for stair ascent compared to young adults. 30th Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Atlanta, GA. January 31 – February 2, 2002.

2001

123. Jolla, J., Smith, K., Beam, S., Vestal, A., Mizelle, C., Hortobágyi, T. & DeVita, P. Healthy old compared to young adults use greater relative quadriceps EMG during stairway locomotion. American College of Sports Medicine. Baltimore, MD. May 30 – June 2, 2001.
 – **Published in *Medicine and Science in Sports and Exercise (suppl.)* 33, s13.**
124. DeVita, P., Mizelle, C., Vestal, A., Beam, S., Jolla, J. Smith, K. & Hortobágyi, T. Neuromuscular reorganization during stairway locomotion in old adults. American College of Sports Medicine. Baltimore, MD. May 30 – June 2, 2001.
 – **Published in *Medicine and Science in Sports and Exercise (suppl.)* 33, s344.**
125. Jolla, J., Smith, K., Beam, S., Mizelle, C., Vestal, A., DeVita, P. & Hortobágyi, T. Old compared to young adults use greater relative muscle activity during stair locomotion. 29th Annual Meeting of the American College of Sports Medicine, Southeast Regional Chapter. Columbia, SC. January 25 – 27, 2001.

Local Non-Refereed Student Presentations

2021

1. H. Smith & J.C. Mizelle. The effects of aging on cognitive motor control: functional connectivity analysis. 2021 Kinesiology Research Day: Exploring the Brains and the Braun. East Carolina University.
2. M. Weeks & J.C. Mizelle. The effects of aging on cognitive motor control: functional connectivity analysis in theta. 2021 Kinesiology Research Day: Exploring the Brains and the Braun. East Carolina University.
3. A. Pate & J.C. Mizelle. The effects of aging on cognitive motor control: functional connectivity analysis of the beta wave. 2021 Kinesiology Research Day: Exploring the Brains and the Braun. East Carolina University.

Interviews and Media (Print, Broadcast or Electronic)

2018

1. "ECU Notes: Researchers using virtual reality to study balance control." The Daily Reflector. Available online, February 18, 2018.
<http://www.reflector.com/News/2018/02/18/Researchers-using-virtual-reality-to-perturb-balance.html>
2. "Concussion and recovery. Researchers using virtual reality to perturb balance." Available online, January 30, 2018.
<https://news.ecu.edu/2018/01/30/concussion-and-recovery/>

2017

3. "ECU Notes: Putting research aims at insights to brain-eye connection." The Daily Reflector. Available online, May 21, 2017.
<http://www.reflector.com/News/2017/05/21/ECU-Notes-Putting-research-aims-at-insights-to-brain-eye-connection.html>
4. "ECU researchers study hand-eye coordination's role in golf." WNCT Broadcasting. Published April 20, 2017.
<https://www.wnct.com/2017/04/10/ecu-researchers-study-hand-eye-coordinations-role-in-golf/>
5. "Steady eyes: Putting research aims at insights to brain-eye connection." East Carolina News Services. Available online, April 7, 2017.
<http://www.ecu.edu/cs-admin/news/Golf-Research.cfm>

2016

6. East Carolina University Experts Blog
<http://blog.ecu.edu/sites/experts/blog/2016/10/25/chris-mizelle/>

2012

7. "Movement neuroscience: helping us understand motor function and the rehabilitation of motor control." Georgia Radio Reading Service (GaRRS) Series, Georgia Public Broadcasting. Recorded September 10, 2012. Presented on air July, 2013.

TEACHING, MENTORING AND ADVISING

Undergraduate Course Instruction

East Carolina University

Department of Exercise and Sport Science

EXSS 3850: Introduction to Biomechanics; Laboratory instructor

Department of Kinesiology

KINE 2202: Motor Learning and Performance; Instructor of record

KINE 3850: Introduction to Biomechanics; Instructor of record

KINE 4001: Special Topics – EEG Methodology I; Instructor of record

KINE 4001: Special Topics – EEG Methodology II; Instructor of record

KINE 4001: Special Topics – Methods in Motor Neuroscience; Instructor of record

KINE 4001: Special Topics – Research in Motor Neuroscience; Instructor of record

KINE 4001: Special Topics – Introduction to Research in Motor Control; Instructor of record

KINE 4002: Special Topics – Using Neurophysiology to Study Human Motor Control;
Instructor of record

KINE 4002: Special Topics – Introduction to Neuroscience Research; Instructor of record

KINE 4003: Special Topics – Research in Neuroscience Methods; Instructor of record

KINE 4003: Special Topics – Methods in Motor Neuroscience; Instructor of record

KINE 4003: Special Topics – Research in Motor Neuroscience; Instructor of record

KINE 4003: Special Topics – Neuromotor Control; Instructor of record

KINE 4500: Independent Study – Methods in Motor Neuroscience; Instructor of record

KINE 4501: Independent Study – Methods in Motor Neuroscience; Instructor of record

KINE 4501: Independent Study – Research in Motor Neuroscience; Instructor of record

KINE 4502: Independent Study – EEG in Sports Motivation; Instructor of record

KINE 4502: Independent Study – Research in Neuroscience Methods; Instructor of record

KINE 4502: Independent Study – Limb Dominance in Visuomotor Integration; Instructor of
record

KINE 4502: Independent Study – EEG Methodology; Instructor of record

KINE 4502: Independent Study – Basic Research Using Neurophysiology to Study Human
Motor Control; Instructor of record

KINE 4502: Independent Study – Neurophysiology Research in Human Motor Control;
Course Master

KINE 4502: Independent Study – EEG in Cognitive Neuroscience; Course master

KINE 4502: Independent Study – The Role of Exercise History on Force Regulation;
Instructor of record

KINE 4800: Internship in Health Fitness; Supervisor

KINE 4991: Independent Research in Exercise Physiology; Supervisor

KINE 4992: Research Internship in Exercise Physiology; Supervisor

The Honors College

HNRS 4500: Signature Honors Project I; Supervisor

HNRS 4550: Signature Honors Project II; Supervisor

Thomas Harriot College of Arts and Sciences

UNIV 4990: University Studies Practicum; Supervisor

NEUR 2201: Basic Research Using Neurophysiology to Study Human Motor Control;
Supervisor and Instructor of record

NEUR 4950: Research in Cognitive and Motor Neuroscience; Supervisor and Instructor of
record

Department of Engineering

BIME 4040: Physiological Systems for Modeling and Engineering I, Guest lecturer

Graduate Course Instruction

East Carolina University

Department of Kinesiology

KINE 6202: Motor Learning; Instructor of record

KINE 6500: Brain Mapping in Motor Imagery and Simulation; Instructor of record

KINE 6500: Data Processing in MATLAB and EEGLAB; Instructor of record

KINE 6500: EEG and Gender; Instructor of record

KINE 6500: Advanced Functional Connectivity Methods; Instructor of record

KINE 6650: Seminar in Kinesiology; Instructor of record

KINE 6803: Special Topics in Neuromotor Control; Instructor of record

KINE 6803: Special Topics in Neuromotor Control: Modeling Neural Information Flow,
Instructor of record

KINE 6990: EEG Methods I; Instructor of record

KINE 6990: Gender and Motor Control; Instructor of record

KINE 6990: Source Localization in Cognitive Motor Control I; Instructor of record

KINE 6990: Research in Motor Neuroscience, Instructor of record

KINE 6990: Research in Motor Neuroscience I, Instructor of record

KINE 6990: Hyperscanning in EEG, Instructor of record

KINE 6991: EEG Methods II; Instructor of record

KINE 6991: EEG Applications; Instructor of record

KINE 6991: Gender and Motor Control; Instructor of record

KINE 6991: Source Localization in Cognitive Motor Control II; Instructor of record

KINE 6991: Analysis Methods for Hyperscanning in EEG, Instructor of record

KINE 6994: Culminating Research Project; Instructor of record

KINE 7000: Thesis I – Proposal and Research; Instructor of record

KINE 7000: Thesis II – Analysis and Writing; Instructor of record

KINE 7000: Thesis III – Writing; Instructor of record
KINE 7203: Neuromotor Control; Developer and Instructor of record
KINE 7335: Seminar in Bioenergetics; Guest lecturer
KINE 8330: Introduction to Research – Upper Extremity Analysis; Instructor of record
KINE 8330: Introduction to Research – EEG Hyperscanning; Instructor of record
KINE 8333: Special Topics in Bioenergetics – Neuromotor Control; Instructor of record
KINE 8333: Introduction to Research – EEG Connectivity Analysis; Instructor of record
KINE 8334: Independent Study – EEG Source Modeling; Instructor of record
KINE 8335: Advanced topics in Bioenergetics – Advanced EEG Analysis; Instructor of record
KINE 9000: Dissertation I – Project Development; Instructor of record
KINE 9000: Dissertation II – Data Collection; Instructor of record
KINE 9000: Dissertation III – Data Analysis; Instructor of record
KINE 9000: Dissertation IV – Writing; Instructor of record

Georgia Institute of Technology

School of Applied Physiology

APPH 8803: Methods in Human Neuroimaging; Guest lecturer
APPH 6216: Directed Studies in Rehabilitation Research; Guest lecturer
APPH 6212: Systems Physiology II - Physiology of Neuromotor Tissues; Lecturer
APPH 6237: Methods in Human Neuroimaging; Guest lecturer

University of Maryland School of Medicine

Department of Physical Therapy and Rehabilitation Science

DPTE 514: Basic Sciences III; Laboratory instructor
DPTE 525: Musculoskeletal II; Seminar facilitator
DPTE 527: Neuromuscular II; Guest lecturer and seminar facilitator

Educational Seminar Series

Georgia State University / Georgia Institute of Technology Center for Advanced Brain Imaging

Best Practices in Functional MRI; Guest lecturer

Mercer Senior University, Atlanta, GA.

How neuroscience helps guide our understanding of behavior; Guest lecturer

Osher Lifelong Learning Institute at Emory University, Atlanta, GA.

Neuroimaging techniques: helping us to understand brain and behavior; Guest lecturer

Doctoral Advisory / Dissertation Committee Chair

1. August, 2021 – Present

Ms. Madison Weeks

Doctoral Program in Bioenergetics and Exercise Science – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Dissertation Title: To be determined.

2. May, 2016 – June, 2020

Ms. Jessica McDonnell

Doctoral Program in Bioenergetics and Exercise Science – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Dissertation Title: Neurobehavioral Strategies of Skill Acquisition in Left- and Right-Hand Dominant Individuals.

- **Jessica transitioned to a Post-Doctoral Fellow at the University of Louisville School of Medicine.**

Doctoral Advisory / Dissertation Committee Member

1. February, 2024 – Present

Mr. Brian Hack

Doctoral Program in Applied Physiology, School of Biological Sciences, Georgia Institute of Technology, Atlanta, GA.

Dissertation Title: To be determined.

2. June, 2020 – May, 2022

Ms. Elisabeth Holt

Doctoral Program in Exercise Science – Rehabilitation Sciences Concentration, Arnold School of Public Health, University of South Carolina, Columbia, SC.

Dissertation Title: Uncompleted due to medical withdrawal.

3. May, 2019 – May, 2022

Mr. Gustavo Sandri-Heidner

Doctoral Program in Bioenergetics and Exercise Science – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Dissertation Title: Neural correlates of body dynamics: Investigating persistent neurological and visuomotor impairment in asymptomatic mTBI.

4. June, 2016 – May, 2018

Mr. Matt Wittbrodt

Doctoral Program in Applied Physiology, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA.

Dissertation Title: Hydration effects on brain structure and motor system function after exercise heat stress in men and women.

5. May, 2012 – May, 2015

Ms. Rachel Kelly

Doctoral Program in Applied Physiology, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA.

Dissertation Title: Understanding the action encoding system: Towards a neurophysiological model of the motor simulation process.

Masters Advisory / Thesis Committee Chair

1. August, 2022 – Present

Ms. Nikole Galman

Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: To be determined.

2. August, 2021 – Present
Ms. Madison Weeks
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Neural entrainment among athlete dyads: An EEG study.
3. August, 2021 – Present
Ms. Mikayla Chambers
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Neurobiological perception of possible and impossible tasks.
4. August, 2020 – July, 2022
Ms. Paige Boone
Master of Science Program in Kinesiology – Exercise Physiology Concentration, Department
of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The perception of exercisers vs. non-exercisers using EEG analysis.
5. August, 2018 – August, 2020
Ms. Hannah Simpson
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The Effects of Injury on Neuromotor Control of the Shoulder.
– **Hannah accepted an industry position at Thermo Fisher Scientific.**
6. August, 2017 – July, 2019
Ms. Alexandra Shaver
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The effects of aging on cognitive motor control.
– **Alex transitioned to a Doctoral student in Kinesiology at the University of Maryland, College Park.**
7. August, 2015 – May, 2018
Mr. Kevin Hooks
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The role of handedness and task difficulty in sensorimotor integration
– **Kevin transitioned to a Doctoral student in Biomedical Engineering at the University of Central Florida.**

Masters Advisory / Thesis Committee Member

1. April, 2023 – Present
Ms. Emily Fenton
Master of Science Program in Biomedical Engineering, Department of Engineering, East Carolina University, Greenville, NC.
Thesis Title: The effects of binaural beats on the brain’s functional connectivity.
2. April, 2023 – July, 2023
Mr. Joshua Lawton
Master of Science Program in Kinesiology – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Successfully controlled BCI through minimal dry electrodes.
3. March, 2021 – May, 2022
Ms. Marwa Antar
Master of Science Program in Biomedical Engineering, Department of Engineering, East Carolina University, Greenville, NC.
Thesis Title: Graph theoretic analysis of the human brain’s functional connectivity alteration due to sleep restriction.
4. June, 2021 – May, 2022
Ms. Lana Wang
Master of Science Program in Biomedical Engineering, Department of Engineering, East Carolina University, Greenville, NC.
Thesis Title: Functional connectivity analysis of visually evoked ERPs for mild cognitive impairment.
5. July, 2021
Mr. Justice Tomchesson
Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Manipulation and perception of internal and external focus during resistance training.
6. May, 2020 – June, 2021
Ms. Joelle Dick
Master of Science Program in Biomedical Engineering, Department of Engineering, East Carolina University, Greenville, NC.
Thesis Title: Exploring the effects of feature extraction techniques and different paradigms on the performance of motor imagery based brain-computer interface.
7. September, 2020 – May, 2021
Ms. Callie Herman
Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Influence of virtual reality height exposure on cognitive load and visual processing during balance beam walking.

8. September, 2020 – May, 2021
Ms. Caitlin Schult
Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration,
Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: An increase in lower extremity injury as a result of cognitive and psychological
deficits of concussion.
9. March, 2020 – May, 2021
Mr. Basel Abdelfattah
Master of Science Program in Biomedical Engineering, Department of Engineering, East
Carolina University, Greenville, NC.
Thesis Title: Eliciting P300 and N170 in the context of facial recognition using an oddball
paradigm.
10. October, 2018 – September, 2019
Mr. Nate Harris
Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration,
Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: Visual search strategies, gaze patterns and head movements of elite baseball
players during an in-field at-bat.
11. October, 2018 – July, 2019
Mr. Wyatt Bunner
Master of Science Program in Kinesiology – Exercise Physiology Concentration, Department
of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The effects of acute exercise on neuron activity in the arcuate nucleus of the
hypothalamus.
12. March, 2018 – June, 2018
Ms. Ashley Moulder
Master of Science Program in Kinesiology – Biomechanics and Motor Control
Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.
Thesis Title: The variation in strength decrement of lower extremity muscle groups and
biomechanical plasticity in older adults.
13. December, 2017 – May, 2018
Mr. Patrick Williams
Master of Science Program in Biomedical Engineering, Department of Engineering, East
Carolina University, Greenville, NC.
Thesis Title: The facial inversion effect throughout healthy adult aging: electrophysiology
recordings of event related potentials.
14. December, 2017 – April, 2018
Mr. Austin White

Master of Science Program in Biomedical Engineering, Department of Engineering, East Carolina University, Greenville, NC.

Thesis Title: Aging effects on semantic processing.

15. May, 2016 – December, 2018

Ms. Caitlin Melton

Master of Science Program in Kinesiology – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Thesis Title: Balance and postural deficits in concussed adolescent athletes identified by virtual time-to-contact.

16. May, 2016 – May, 2017

Mr. Daniel Kuhman

Master of Science Program in Kinesiology – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Thesis Title: The relationships between physical capacity and biomechanical plasticity with age during level and incline walking.

17. July, 2016 – May, 2017

Mrs. Victoria Price

Master of Science Program in Kinesiology – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Thesis Title: Knee joint forces in relation to ground surface stiffness during running.

18. November, 2016 – May, 2017

Mr. Tyler Whittier

Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Thesis Title: Electroencephalography (EEG) and its use in motor learning and control.

19. November, 2016 – May, 2017

Ms. Lacey Schwab

Master of Science Program in Kinesiology – Sport and Exercise Psychology Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Thesis Title: Mothers and daughters participating in physical activity together while reducing screen time and sedentary behavior.

Masters Advisory / Non-Thesis Project Director

1. December, 2019 – December, 2020

Mr. Tarun Singh

Master of Science Program in Kinesiology – Biomechanics and Motor Control Concentration, Department of Kinesiology, East Carolina University, Greenville, NC.

Undergraduate Student Profiles

2022

1. Jenny Painter, Exercise Physiology major, ECU College of Health and Human Performance Undergraduate Research Spotlight,
<https://hhp.ecu.edu/2022/01/28/hhp-student-profile-jenny-painter/>

2021

2. Nikole Galman, Exercise Physiology major, ECU College of Health and Human Performance, ECU News Services,
<https://news.ecu.edu/2021/07/27/undergraduate-research-on-display-during-summer-symposium/>

2019

3. Sydney Rossback, Exercise Physiology major, ECU College of Health and Human Performance Undergraduate Research Spotlight,
<https://rede.ecu.edu/studentimpact/2019/10/31/sydneyrossback/>

2018

4. Alyssa Cadavid, Exercise Physiology major, ECU College of Health and Human Performance Undergraduate Research Spotlight,
<https://hhp.ecu.edu/2018/08/27/cadavid-student-profile/>

Undergraduate Research Supervision

1. January, 2023 – Present
Ms. Kathryn Fisher
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
2. January, 2023 – Present
Ms. Amber Parker
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
3. January, 2023 – Present
Ms. Madison Underwood
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
4. January, 2023 – Present
Mr. Cole Cristman
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
5. January, 2023 – Present
Ms. Lauren Getner
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

6. January, 2023 – Present
Ms. Lauren Bracey
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
7. January, 2023 – Present
Ms. Madeline Rushing
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
8. January, 2023 – Present
Ms. Morgan Moseby
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
9. October, 2023 – Present
Ms. Hannah Vanstaalduinen
Honors College Student in the Bachelor of Science Program in Recreational Therapy, Department of Recreation Sciences, East Carolina University, Greenville, NC.
10. September, 2023 – Present
Ms. Lauren Stewart
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
11. August, 2023 – December, 2023
Ms. Johanna Stroud
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
12. August, 2023 – December, 2023
Ms. Audrey Carr
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
13. May, 2023 – July, 2023
Ms. Camille Carter
Bachelor of Science Program in Mechanotronics Engineering and Neuroscience, Department of Engineering, University of North Carolina – Asheville.
14. March, 2023 – Present
Ms. Macy Sanderson
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
15. January, 2023 – May, 2023

Ms. Baelee Benevento
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

16. January, 2023 – May, 2023

Ms. Brielle Benevento
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

17. January, 2023 – May, 2023

Mr. Ashton Evans
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

18. January, 2023 – May, 2023

Mr. Zachary Lessman
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

19. September, 2022 – December, 2022

Mr. Isaac Meyers
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

20. September, 2022 – December, 2022

Mr. Austin Goins
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

21. May, 2022 – Present

Ms. Destiny Alling
Bachelor of Science, Multidisciplinary Studies Program in Neuroscience, Thomas Harriot College of Arts and Sciences, East Carolina University, Greenville, NC.

22. January, 2022 – December, 2022

Ms. Madison Kidd
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

23. January, 2022 – May, 2023

Ms. Abi Sawyer
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

24. January, 2022 – May, 2023

Ms. Mikayla Dupre

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

25. January, 2022 – Present

Ms. Darrian Grimes

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

26. May, 2021 – Present

Ms. Caitlyn Mayo

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

27. August, 2020 – December, 2022

Ms. Ashley Cameron

Bachelor of Science, Multidisciplinary Studies Program in Neuroscience, Thomas Harriot College of Arts and Sciences, East Carolina University, Greenville, NC.

28. August, 2020 – December, 2022

Ms. Anna Moffett

Bachelor of Science, Multidisciplinary Studies Program in Neuroscience, Thomas Harriot College of Arts and Sciences, East Carolina University, Greenville, NC.

29. May, 2022 – July, 2022

Ms. Lauren Phillip

Bachelor of Science Program in Bioengineering, Department of Bioengineering, U.A. Whitaker College of Engineering, Florida Gulf Coast University, Fort Myers, FL.

30. January, 2022 – May, 2022

Ms. Megan Gottlieb

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

31. January, 2022 – May, 2022

Ms. Madison Stone

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

32. January, 2022 – May, 2022

Mr. Christian Gilliam

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

33. August, 2021 – May, 2022

Ms. Lauren Crawford

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

34. August, 2021 – May, 2022

Mr. Hampton Ergle

Bachelor of Science Program in Biology, Department of Biology, East Carolina University, Greenville, NC.

35. January, 2021 – May, 2022

Ms. Bree Tucker

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

36. January, 2021 – Present

Ms. Jenny Painter

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Jenny's work in my lab has twice received the competitive ECU Undergraduate Research and Creative Activity Award.**

37. January, 2021 – May, 2022

Ms. Nikole Galman

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Nikole was accepted into the competitive 2021 NSF Research Experience for Undergraduates (REU) Program in Biomedical Engineering in Simulations, Imaging and Modeling (BME-SIM), and completed this work under my supervision.**
- **Nikole has been accepted into our Masters graduate program in Kinesiology.**

38. August, 2021 – December, 2021

Ms. Lauren Borsa

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

39. August, 2021 – December, 2021

Ms. Brooke Lindsay

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

40. August, 2021 – December, 2021

Ms. Soumya Kamath

Bachelor of Science Program in Biology, Department of Biology, East Carolina University, Greenville, NC.

41. August, 2021 – December, 2021

Ms. Christina Compitello
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

42. April, 2021 – December, 2021

Ms. Rachelle Duncan

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

43. January, 2021 – December, 2021

Ms. Emma Farmer

Bachelor of Science, Multidisciplinary Studies Program in Neuroscience, Thomas Harriot College of Arts and Sciences, East Carolina University, Greenville, NC.

44. January, 2021 – December, 2021

Ms. Kaitlyn Spach

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

45. January, 2020 – December, 2021

Ms. Meaghan Ellis

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

46. January, 2021 – May, 2021

Ms. Mikayla Chambers

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

47. August, 2020 – May, 2021

Ms. Madison Weeks

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Madison's work in my lab received the competitive ECU Undergraduate Research Mini Award.**
- **After completing her undergraduate studies, Madison became the first student to concurrently enroll in the Masters of Science program and Doctoral Program in Bioenergetics and Exercise (Biomechanics and Motor Control concentrations) in the Department of Kinesiology at ECU.**

48. August, 2021 – May, 2021

Ms. Abigail Pate

Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

49. January, 2021 – May, 2021

Mr. Kyle Thompson
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

50. January, 2021 – May, 2021

Ms. Shaelyn Raleigh
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

51. August, 2020 – May, 2021

Ms. Nicole D’Auria
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

52. August, 2020 – May, 2021

Ms. Kaitlyn Stallings
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

53. January, 2020 – May, 2021

Ms. Emily Wynne
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

54. January, 2020 – May, 2021

Mr. Hunter Smith
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

55. August, 2019 – May, 2021

Mr. Matthew Russell
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

56. August, 2019 – May, 2020

Ms. Mindy Kovacs
Bachelor of Science, Multidisciplinary Studies Program in Neuroscience, Thomas Harriot College of Arts and Sciences, East Carolina University, Greenville, NC.

57. August, 2019 – May, 2020

Ms. Emily Whitehead
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

58. August, 2019 – May, 2020

Ms. Cara Mills

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

59. August, 2019 – May, 2020

Ms. Jordan Kokx

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

60. August, 2019 – December, 2019

Ms. Allie Hawks

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

61. August, 2019 – December, 2019

Ms. MaryAlice Swanson

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

62. May, 2019 – July, 2019

Mr. Jonathan Moreno

Bachelor of Science Program in Biomedical Engineering, College of Engineering, Lawrence Technical University, Southfield, MI.

63. January, 2019 – May, 2020

Ms. Sydney Rossback

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Sydney's work in my lab received the competitive ECU Undergraduate Research and Creative Activities (URCA) award.**
- **Sydney transitioned to a graduate student at the University of North Carolina - Greensboro**

64. January, 2019 – May, 2019

Mr. Landon Brown

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

65. January, 2019 – May, 2019

Ms. Savannah Morris

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

66. January, 2019 – May, 2019

Ms. Meredith McLean

Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

67. January, 2019 – May, 2019
Ms. Natalie McGarvey
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
68. January, 2019 – May, 2019
Ms. Hannah Cooper
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Hannah transitioned to a graduate student in the Doctor of Physical Therapy program in the Department of Physical Therapy, Miller School of Medicine, University of Miami.**
69. August, 2018 – June, 2019
Ms. Aisha Montgomery
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
70. August, 2018 – December, 2018
Ms. Alyssa Cadavid
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
71. August, 2018 – December, 2018
Ms. Brittney Purcell
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Brittney transitioned to a graduate student in the Masters of Science program (Biomechanics and Motor Control) in the Department of Kinesiology at ECU.**
72. August, 2018 – December, 2018
Ms. Tyler Lucas
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
73. August, 2018 – December, 2018
Ms. Celia Ruiz
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
74. May, 2018 – August, 2018
Ms. Natalie Dottle
Bachelor of Science Program in Biomedical Engineering, Department of Engineering, LeTourneau University, Longview, TX.

75. January, 2018 – August, 2018
Ms. Madeline Pauley
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Madeline transitioned to a graduate student in the Masters of Biomedical Engineering program in the Department of Engineering at Old Dominion University.**
76. January, 2018 – May, 2018
Ms. Geena White
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
77. August, 2017 – May, 2018
Ms. Stephanie Cole
Bachelor of Science Program in University Studies, Thomas Harriott College of Arts and Sciences, East Carolina University, Greenville, NC.
78. August, 2017 – May, 2018
Ms. Jeena Patel
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
79. August, 2017 – May, 2018
Ms. Julia Murphy
Bachelor of Science Program in Health Fitness Specialist, Department of Kinesiology, East Carolina University, Greenville, NC.
80. August, 2017 – May, 2018
Ms. Mary Little
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
81. August, 2017 – May, 2018
Ms. Hannah Simpson
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Hannah transitioned to a graduate student in the Masters of Science program (Biomechanics and Motor Control) in the Department of Kinesiology at ECU.**
82. August, 2017 – May, 2018
Mr. Adam Modzik
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

83. August, 2017 – May, 2018
Mr. Joshua Silver
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
66. August, 2017 – May, 2018
Ms. Margaret Marshall
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Maggie’s work in my lab received the competitive ECU Undergraduate Research and Creative Activities (URCA) award.**
– **Maggie transitioned to a graduate student in the Doctor of Physical Therapy program in the Department of Physical Therapy at ECU.**
84. August, 2017 – May, 2019
Ms. Rachel Grantham
Honors College Student in the Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Rachel transitioned to a graduate student in the Masters of Science program (Sports and Exercise Psychology) in the Department of Kinesiology at ECU.**
85. July, 2017 – August 2017
Ms. Katalina Aguilar
Bachelor of Science Program in Biomedical Engineering, Department of Engineering, Boston University, Boston, MA.
86. January, 2017 – May, 2017
Ms. Stephanie Geile
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
87. January, 2017 – May, 2017
Ms. JaNiece Dunn
Bachelor of Science Program Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
88. January, 2017 – May, 2017
Ms. Kelsey Reeves
Bachelor of Science Program Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.
– **Kelsey transitioned to a graduate student in the Masters of Science program (Biomechanics and Motor Control) in the Department of Kinesiology at ECU.**
89. January, 2017 – May, 2017

Ms. Allison Beachum
Bachelor of Science Program Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

90. January, 2017 – May, 2017

Ms. Rachel Dodson
Bachelor of Science Program Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Rachel transitioned to a graduate student in the Doctor of Physical Therapy program in the Department of Physical Therapy at ECU.**

91. June, 2016 – August, 2016

Ms. Temilade Aladeniyi
Bachelor of Science Program in Biology, Department of Biology, North Carolina Central University, Durham, NC.

92. August, 2016 – August 2017

Ms. Alexandra Shaver
Bachelor of Science Program in Exercise Physiology, Department of Kinesiology, East Carolina University, Greenville, NC.

- **Alex transitioned to a graduate student in the Masters of Science program (Biomechanics and Motor Control) in the Department of Kinesiology at ECU.**

93. December, 2016 – May, 2018

Ms. Natalie Salter
Bachelor of Science Program in Health Fitness Specialist, Department of Kinesiology, East Carolina University, Greenville, NC.

Project Title: A research study of the effects of verbal motivation on maximal effort force generation and related brain activation.

Graduate or Professional Student Mentorship

1. September, 2012 – April, 2013

Ms. Lena Ebron
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.

2. September, 2012 – April, 2013

Ms. Danielle Tomeck
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.

3. September, 2012 – April, 2013

Mr. Trent Byrd
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.

4. September, 2012 – April, 2013
Mr. Jordan Cohen
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.
5. May, 2010 – August, 2010
Ms. Victoria Poole
Doctoral Program in Biomedical Engineering, Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN.
6. November, 2010 – April, 2011
Ms. Sheryl Nathanson
Master of Science Program in Prosthetics and Orthotics, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA.
7. November, 2010 – April, 2011
Mr. Mike Cope
Master of Science Program in Prosthetics and Orthotics, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA.
8. March, 2009 – May, 2010
Ms. Nikta Pirouz
Master of Science Program in Prosthetics and Orthotics, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA.
9. September, 2009 – May, 2011
Ms. Ashley Perry
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.
10. September, 2009 – May, 2011
Ms. Bonnie Clark
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.
11. September, 2009 – May, 2011
Ms. Megan Hollar
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.
12. September, 2009 – May, 2011
Ms. Grace Lewis
Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.

13. September, 2009 – May, 2011

Ms. Brita McKinnon

Doctor of Physical Therapy Program, Department of Rehabilitation Medicine, Division of Physical Therapy, Emory University School of Medicine, Atlanta, GA.

Undergraduate Student Mentorship

1. May, 2014 – August, 2015

Ms. Sumia Basunia

Bachelor of Science Program in Biology, School of Biology, Georgia Institute of Technology, Atlanta, GA.

2. January, 2013 – December, 2015

Ms. Kelly Neary

Bachelor of Science Program in Biomedical Engineering, Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA.

– **Kelly's work in our lab twice earned the President's Undergraduate Research Award (PURA) at Georgia Tech**

3. December, 2013 – December, 2014

Mr. Bennett Alterman

Bachelor of Science Program in Biology, School of Biology, Georgia Institute of Technology, Atlanta, GA.

4. June, 2012 – August, 2012

Mr. Daniel DeWitz

Behavioral Research Advancements in Neuroscience (BRAIN) Fellow, Bachelor of Science Program in Bio-psychology, Natural Sciences and Mathematics Division, Viterbo University, La Crosse, WI.

5. June, 2012 – August, 2012

Mr. Frederik Kamps

Behavioral Research Advancements in Neuroscience (BRAIN) Fellow, Bachelor of Arts Program in Neuroscience, Department of Neuroscience, Macalester College, Saint Paul, MN.

6. August, 2011 – May, 2012

Ms. Briana Shay

Bachelor of Science Program in Biomedical Engineering, Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA.

7. August, 2010 – December, 2010; August 2011 – December, 2011

Mr. Arthur E. Morrissette V

Bachelor of Science Program in Biomedical Engineering, Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA.

8. June, 2011 – August, 2011

Ms. Alexis Oparah

Behavioral Research Advancements in Neuroscience (BRAIN) Fellow, Bachelor of Science Program in Neuroscience, Department of Psychology & Neuroscience, Duke University, Durham, NC.

9. August, 2009 – December, 2009

Ms. Bianca Whitten

Bachelor of Science Program in Management, College of Management, Georgia Institute of Technology, Atlanta, GA.

10. June, 2009 – August, 2009

Ms. Teresa Tang

Behavioral Research Advancements in Neuroscience (BRAIN) Fellow, Bachelor of Science Program in Biology, Department of Biology, Wake Forest University, Winston-Salem, NC.

11. March, 2009 – May, 2009

Mr. Jason Earnest

Bachelor of Science Program in Biomedical Engineering, Wallace H. Coulter Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA.

PROFESSIONAL SERVICE AND RELATED ACTIVITIES

Professional Editorial Board Service

2021 – Present

Topic Editor, *Symmetry*

2020 – Present

Guest Editor, special issue to appear in *Symmetry: Symmetry in Cognitive and Behavioural Neuroscience*

Professional Journal Review

2010 - Present

Ad hoc Reviewer, *Journal of Neuroscience Methods*

Ad hoc Reviewer, *Biological Psychology*

Ad hoc Reviewer, *Transactions on Biomedical Engineering*

Ad hoc Reviewer, *Journal of Imagery Research in Sport and Physical Activity*

Ad hoc Reviewer, *Neuroscience Letters*

Ad hoc Reviewer, *Frontiers in Human Neuroscience*

Ad hoc Reviewer, *Cerebral Cortex*

Ad hoc Reviewer, *Journal of Neurophysiology*

Ad hoc Reviewer, *Journal of Motor Behavior*

Ad hoc Reviewer, *Heilyon*

Ad hoc Reviewer, *Nature – Scientific Reports*

Ad hoc Reviewer, *Journal of Applied Physiology*

Ad hoc Reviewer, *Journal of Cognitive Psychology*

Ad hoc Reviewer, *Clinical Neurophysiology*

Ad hoc Reviewer, *Frontiers in Psychology*

Ad hoc Reviewer, *Frontiers in Aging Neuroscience*

Ad hoc Reviewer, *Parkinsonism and Related Disorders*

Ad hoc Reviewer, *Symmetry*

Ad hoc Reviewer, *Frontiers in Integrative Neuroscience*

Ad hoc Reviewer, *Applied Sciences*

Professional Organization Review

2011 – Present

Ad hoc Reviewer, Eastern Carolina Chapter of the Society for Neuroscience

Ad hoc Reviewer, International Neuropsychological Society

Ad hoc Reviewer, American Society of Biomechanics

Ad hoc Reviewer, Organization for Human Brain Mapping

Grant and Fellowship Review Panels

2023

National Science Foundation Graduate Research Fellowship Program (NSF GRFP);
Neurosciences II Panel: Life Sciences, Neurosciences

2022

National Science Foundation Graduate Research Fellowship Program (NSF GRFP);
Neurosciences I Panel: Life Sciences, Neurosciences

2021

National Science Foundation Graduate Research Fellowship Program (NSF GRFP);
Neurosciences I Panel: Life Sciences, Neurosciences

2020

Society for Neuroscience Trainee Professional Development Award (TPDA) Selection
Committee

National Science Foundation Graduate Research Fellowship Program (NSF GRFP);
Neurosciences I Panel: Life Sciences, Neurosciences

2019

National Science Foundation Graduate Research Fellowship Program (NSF GRFP);
Psychology Panel I: Computational Psychology, Cognitive Neuroscience, Cognitive
Psychology, and Psycholinguistics

2018

Department of Veterans Affairs – Small Projects in Rehabilitation Effectiveness (SPIRE)

Department of Veterans Affairs – Small Projects in Rehabilitation Effectiveness (SPIRE)

2017

Department of Veterans Affairs – Small Projects in Rehabilitation Effectiveness (SPIRE)

Department of Veterans Affairs – External Grant Review, Atlanta Veterans Affairs Medical
Center, Center for Visual and Neurocognitive Rehabilitation, Decatur, GA.

2016

Department of Veterans Affairs – External Grant Review, Atlanta Veterans Affairs Medical
Center, Center for Visual and Neurocognitive Rehabilitation, Decatur, GA.

Department of Veterans Affairs – Internal Grant Review, Atlanta Veterans Affairs Medical
Center, Center for Visual and Neurocognitive Rehabilitation, Decatur, GA.

2014

Department of Veterans Affairs – Internal Review, Atlanta Veterans Affairs Medical Center,
Center for Visual and Neurocognitive Rehabilitation, Decatur, GA.

Other Grant and Fellowship Review Committees

2013

President's Undergraduate Research Awards (PURA) Applicant Review, Georgia Institute of
Technology, Atlanta, GA (Spring)

2012

Behavioral Research Advancements in Neuroscience (BRAIN) Fellowship Applicant Review, Center for Behavioral Neuroscience, Atlanta, GA

President's Undergraduate Research Awards (PURA) Applicant Review, Georgia Institute of Technology, Atlanta, GA (Spring)

2011

Behavioral Research Advancements in Neuroscience (BRAIN) Fellowship Applicant Review, Center for Behavioral Neuroscience, Atlanta, GA

Georgia State University/Georgia Institute of Technology Center for Advanced Brain Imaging (CABI) Seed Grant Review, Atlanta, GA

Scholarly Society Officer Roles

2023

Vice President and President, Eastern Carolina Chapter for the Society for Neuroscience

2022

Vice President and President-elect, Eastern Carolina Chapter for the Society for Neuroscience

2021

Vice President and President-elect, Eastern Carolina Chapter for the Society for Neuroscience

2020

Secretary, Eastern Carolina Chapter for the Society for Neuroscience

2019

Secretary, Eastern Carolina Chapter for the Society for Neuroscience

Scholarly Society Committees

2022

Program Committee, 51st Annual Meeting of the International Neuropsychological Society, San Diego, CA

2021

Program Committee, 50th Annual Meeting of the International Neuropsychological Society, New Orleans, LA

2020

Program Committee, 49th Annual Meeting of the International Neuropsychological Society, San Diego, CA

Program Committee, Annual Meeting of the Eastern Chapter for the Society for Neuroscience

2019

Program Committee, 48th Annual Meeting of the International Neuropsychological Society, Denver, CO

Program Committee, Annual Meeting of the Eastern Chapter for the Society for Neuroscience

2018

Council member, Eastern Carolina Chapter for the Society for Neuroscience

Program Committee, 47th Annual Meeting of the International Neuropsychological Society, Boston, MA

Program Committee, Annual Meeting of the Eastern Chapter for the Society for Neuroscience

2017

Council member, Eastern Carolina Chapter for the Society for Neuroscience

Program Committee, 45th Annual Meeting of the International Neuropsychological Society, New Orleans, LA

2016

Program Committee, 44th Annual Meeting of the International Neuropsychological Society, Washington, DC

Conference Presentation Judge

2023

Research and Creative Activity Week, East Carolina University, Greenville, NC

2020

Research and Creative Activity Week, East Carolina University, Greenville, NC

2018

Research and Creative Activity Week, East Carolina University, Greenville, NC

2017

Research and Creative Activity Week, East Carolina University, Greenville, NC

2016

Research and Creative Activity Week, East Carolina University, Greenville, NC

Scholarly Society Membership

2013 – Present
Society for the Neural Control of Movement

2006 – Present
Cognitive Neuroscience Society

2005 – Present
Society for Neuroscience

2003 – 2007; 2016 – 2018
American Society of Biomechanics

Organized Meetings

2009

Co-Director, Neural Correlates of Object Perception and Action Workshop, Atlanta, GA

Host for Invited Presentations and Guests

2020

Dr. Reggie Edgerton, Department of Integrative Biology and Physiology, University of California – Los Angeles hosted by ECU’s Research and Creative Activities Week, and facilitated by Dr. Chris Mizelle, Department of Kinesiology, East Carolina University, Greenville, NC.

– **Secured \$1650 from ECU Student Government Association for Dr. Edgerton’s travel, lodging and honorarium. Postponed due to COVID-19.**

2016

Dr. Lewis Wheaton, School of Applied Physiology, Georgia Institute of Technology, Atlanta, GA hosted by Dr. Chris Mizelle, Department of Kinesiology, East Carolina University, Greenville, NC

Service to University and Unit

2024

Chair, Selection Committee, HHP Outstanding Undergraduate Research and Creative Activity Mentor Award

Chair, Personnel Committee, Department of Kinesiology, East Carolina University

Chair, Promotion and Tenure Committee, Department of Kinesiology, East Carolina University

2023

Chair, Selection Committee, HHP Outstanding Undergraduate Research and Creative Activity Mentor Award

Chair, Personnel Committee, Department of Kinesiology, East Carolina University

Chair, Promotion and Tenure Committee, Department of Kinesiology, East Carolina University

Search Committee, Exercise Physiology Assistant Professor, Department of Kinesiology, East Carolina University

Search Committee, DEI Assistant Professor, Department of Kinesiology, East Carolina University

2022

Chair, Personnel Committee, Department of Kinesiology, East Carolina University

Chair, Promotion and Tenure Committee, Department of Kinesiology, East Carolina University

Search Committee, Exercise Physiology Assistant Professor, Department of Kinesiology, East Carolina University

Search Committee, Dual Exercise Physiology Open Rank Positions, Department of Kinesiology, East Carolina University

Organizing Committee, 2022 Kinesiology Research Day

2021

Personnel Committee, Department of Kinesiology, East Carolina University

Search Committee, Dual Exercise Physiology Open Rank Positions, Department of Kinesiology, East Carolina University

Scholarship Committee, Department of Kinesiology, East Carolina University

2020

Personnel Committee, Department of Kinesiology, East Carolina University

Working Group for the Undergraduate Research Opportunities Initiative, Department of Kinesiology, East Carolina University

Faculty Evaluation Rubric Development Task Force, Department of Kinesiology, East Carolina University

Search Committee, Outstanding Undergraduate Research and Creative Activity Mentor, College of Health and Human Performance, East Carolina University

Peer observation for Dr. Dana Espinosa

Junior Faculty Mentor for Dr. Swati Surkar, Department of Physical Therapy, East Carolina University

2019

Personnel Committee, Department of Kinesiology, East Carolina University

Working Group for the Undergraduate Research Opportunities Initiative, Department of Kinesiology, East Carolina University

Junior Faculty Mentor for Dr. Swati Surkar, Department of Physical Therapy, East Carolina University

2018

Search Committee (Postdoctoral Fellow), Department of Kinesiology, East Carolina University

Working Group for the Undergraduate Research Opportunities Initiative, Department of Kinesiology, East Carolina University

Peer classroom observation for Dr. Deirdre Dlugonski

2016

Peer classroom observation for Dr. Amy Rundio

Service to Community

2020

Invited presentation for 4th-5th grade AIG students in Pitt County

HONORS AND AWARDS

2023

Honorary Coach, ECU Women's Basketball Team

2019

East Carolina University, College of Health and Human Performance Outstanding Undergraduate Research and Creative Activity Mentor Awardee

2011 – 2015

Department of Veterans Affairs Career Development Award (CDA-2) Fellowship

2008 – 2010

Georgia Institute of Technology Postdoctoral Fellowship

2007 – 2008

Department of Veterans Affairs, Office of Academic Affairs Predoctoral Fellowship

2003 – 2007

National Institutes of Health T32 Fellowship