Sherry Adams

EDUCATION

Doctor of Philosophy, Veterinary Medical Sciences – Respiratory Physiology

- University of Florida, Gainesville, FL
- April 2015

Master of Science Exercise Physiology

- University of Florida, Gainesville, FL
- August 2009

Bachelor of Science Physical Education *Fitness/Wellness (Exercise Science)*

- University of Central Missouri (formerly Central Missouri State University), Warrensburg, MO
- August 2006

HONORS AND AWARDS

- Provost Award for Outstanding Advising/Mentorship, Pfeiffer University
- Shining Star, Applied Health Sciences, Pfeiffer University
- Excellence in Doctoral Studies, Office of Research and Graduate Studies, University of Florida
- Missouri Association for Health, Physical Education, Recreation, and Dance Major of the Year from CMSU (selected by faculty members in the Department of Health and Human Performance)

PROFESSIONAL ORGANIZATIONS

American College of Sports Medicine
American Physiological Society
Human Anatomy and Physiology Society
International Society for the Advancement of Respiratory Psychophysiology
Society for Neuroscience
Southeast American College of Sports Medicine
Sigma Xi

PROFESSIONAL EXPERIENCE

Idaho State University, Idaho Falls, ID

- Assistant Lecturer, Biological Sciences (August 2021-present)
- Committees
    - Undergraduate Education Committee (2021-present)
- Courses Taught
    - Advanced Anatomy and Physiology I and II
    - Seminar
    - Cell Biology
    - Intro to Biology

Sherry Adams

Santa Fe College, Gainesville FL

- Assistant Professor, Sciences for Health Programs (January 2020-August 2021)
- Committees
    - General Education Review Committee 2021-present
    - Search Committee 2020

- Courses Taught
    - Anatomy and Physiology I and II

The University of North Carolina at Chapel Hill, NC

- Assistant Professor, Carolina Higher Education Opportunity Programs-Science Enrichment Preparation Program (May-July 2019 and May-July 2021)
- Courses Taught
    - Anatomy and Physiology (combined course for pre-dental and pre-medical students from underrepresented groups, first-generation, low socioeconomic class, and/or rural communities)

Pfeiffer University, Misenheimer, NC

- Assistant Professor and Chair, Department of Health and Exercise Science (August 2015-December 2019)
- Exercise Science Club Advisor
- Clergy Health Retreat Co-Chair
- Neuroscience STEM Camp (Elementary and Middle School)
- Grants
    - Outdoor Nation Grant $250 plus prizes valued over $1,000

- Committees
    - Grants 2017-2019
    - Curriculum 2018-2019
    - Committee on Committees 2017-2019
    - Athletics 2016-2017
    - Wellness 2016-2019
    - Health Fair Expo 2016-2019

- Courses Taught
    - Anatomy and Physiology I and II
    - Exercise Physiology
    - Sports Nutrition
    - Foundations of Fitness Leadership
    - Nutrition
    - Exercise Testing and Prescription
    - Seminar/Research Methods
    - Women in Science

- Mentoring Experience
    - Mentored an undergraduate honor student in application to institutional board review (IRB), data collection and analysis of fatigue and physiological parameters comparing post-concussed and healthy female soccer players with presentations at three national conferences.
    - Mentored an undergraduate honor student in date collection, analysis of longevity parameters, and genetic regulation in caloric-restricted curly-wing drosophila with presentations at two regional conferences.
    - Mentored undergraduate honor students with literature review and data collection and analysis
        - Is gaming considered a sport?
        - Does pH change in response to GMO vs non-GMO foods?
    - Mentored undergraduate honor students with application to IRB, data collection, and analysis in the following:
        - Perception and lactic acid responses comparing athletes and non-athletes in a Wingate exercise protocol
        - Perception and physiological parameters comparing a restricted and unrestricted breathing protocol in athletes with and without asthma
        - Gender bias survey and knowledge of women in STEM
        - Postural alignment and balance assessment in Division III collegiate athletes
        - Lower extremity injuries post-concussion in Division III collegiate female athletes
        - Using Sway (app) to assess balance in post-concussed Division III collegiate athletes

Lindsey-Wilson College, Columbia, KY

- Adjunct Assistant Professor for online Nutrition courses, Department of Nursing (August 2016-present)

University of Florida, Gainesville, FL

- Teaching Assistant for Neuroanatomy Lab, Department of Physiological Sciences (October 2011-April 2015)
- Research Assistant, Department of Physiological Sciences (August 2009-April 2015)
- Teaching Assistant for Anatomy and Physiology Labs, Department of Applied Physiology and Kinesiology (August 2008-August 2009)
- Teaching Assistant, Sport and Fitness (July 2007-August 2008)
- Intern, Lifestyle Appraisal Center, Department of Recreational Sports (May 2006-July 2006)

University of Central Missouri, Warrensburg, MO

- Adjunct, Lifetime Fitness, Health and Human Performance (August 2006-December 2006)
- Instructor, Stability Ball Fitness Class, Health and Human Performance (August 2005-May 2007)

Sherry Adams

RESEARCH INTERESTS

My interest is in traumatic brain injury/concussion and the modulation of respiratory neural control, neurological functions, perception, anxiety, and physiological functions. Additional areas to explore would be intervention programs including physical activity and nutrition to determine outcomes on stress, anxiety, and physiological parameters. Additional interests are in various teaching styles to improve student success in anatomy and physiology course outcomes.

CURRENT RESEARCH

My primary research focus is the control of breathing in exercise following neurological injury. I am currently investigating the neuromuscular respiratory responses and compensation to challenges in humans. Respiratory compensation requires neuromuscular compensation and integration due to increased metabolic demands during exercise. My lab is looking at how this respiratory compensation is affected post-concussion.

During my Ph.D., I used an animal model to look at the modulation of neural control on the respiratory system in a rodent model of traumatic brain injury (TBI). The rat model is chronically instrumented with EMG electrodes for recordings of respiratory compensation to an overpressurization blast injury and CO_2 respiratory load pre- and post-injury. My project also evaluated the effect TBI has on somatosensory and neurological functions.

My research has included administering a respiratory load during an exercise protocol to determine what happens with respiratory compensation and explore how the TBI/concussion affects cognitive function by evaluating trait anxiety scores, rating of perceived exertion and urge to stop during physical activity in humans.

Future directions would be to assess anxiety, stress, and physiological parameters pre- and post-intervention of implementation of physical activity and nutrition programs.

Another project is assessing various teaching styles and outcomes of student learning and success in anatomy and physiology courses. The focus would be presenting the material using interactive projects, diagrams, and use of case studies; discussion about changes in homeostasis leading to disease processes; processes using quizzes, written assignments, and group work to better understand the material presented.

ADMINISTRATIVE CONFERENCES

International Society for the Advancement of Respiratory Psychophysiology, Vevey, Switzerland, October 4-6, 2019.

Health Professions Advisors of North Carolina (HPANC) Spring 2019 Meeting, Elon University, March 16, 2019.

Academic Chairpersons Conference, 36th Annual, Houston, TX, February 6-8, 2019.

International Society for the Advancement of Respiratory Psychophysiology, Gainesville, FL, October 12-14, 2018.

Academic Chairpersons Conference, 35th Annual, Orlando, FL, February 14-16, 2018.

PUBLISHED ABSTRACTS

Adams, S. and D. Malloy. Respiratory load compensation and perception during submaximal exercise in collegiate athletes. Society for Neuroscience Annual Meeting, 2018.

Nance, J. and Adams, S. Longevity outcomes and genetic regulation in curly-wing drosophila. Sigma Xi Student Research Conference, 2017.

Nance, J., Thompson, M., and Adams, S. Longevity outcomes in calorie restricted curly-wing drosophila. Southern Regional Honors Council (SRHC) Conference, 2017.

Adams, S., C.F. Conover, S. I. Svetlov, K.W. Wang, P.W. Davenport and J.F. Yarrow. Hypothalamic-pituitary dysfunction resulting in anxiety and decreased circulating testosterone levels following traumatic brain injury in a male rodent model. Society for Neuroscience (SfN) Annual Meeting, 2016.

Malloy, D. and S. Adams. Heart rate, minute ventilation, and maximum oxygen uptake in healthy and post-concussed collegiate female athletes. Society for Neuroscience (SfN) Annual Meeting, 2016.

Malloy, D. and S. Adams. Perception of fatigue in health and post-concussed collegiate female soccer players. American College of Sports Medicine (ACSM) Annual Meeting, 2016.

Malloy, D. and S. Adams. Rate of perceived exertion in healthy and post-concussed collegiate female soccer players. National Conference on Undergraduate Research (NCUR) Annual Meeting, 2016.

Adams, S., J.A. Condrey, H.W. Tsai, S.I. Svetlov, K.W. Wang and P.W. Davenport. Somatosensory changes following blast-induced traumatic brain injury. International Society for the Advancement of Respiratory Psychophysiology (ISARP) Annual Meeting, 2014.

Davenport, P.W., H.W. Tsai, K. Wheeler-Hegland, S. Adams, J. Condrey, J. Hosford and K. Fennelly. Cough compression phase airflow leak with capsaicin elicited reflex cough in elderly women. 8th International Symposium on Cough, 2014.

Adams, S., J.A. Condrey, H.W. Tsai, V. Prima, S.I. Svetlov, C. Sumners and P.W. Davenport. Respiratory compensatory responses to hypercapnia following multiple over-pressurization blast injuries in rats. International Society for the Advancement of Respiratory Psychophysiology (ISARP) Annual Meeting, 2013.

Tsai. H.W., K. Fennelly, K.W. Hegland, S. Adams, J.A. Condrey, J.L. Hosford and P.W. Davenport. Capsaicin induced cough and urge-to-cough in elderly individuals with sarcopenia. ISARP Annual Meeting, 2013.

Adams, S., J.A. Condrey, H.W. Tsai, V. Prima, S.I. Svetlov, C. Sumners and P.W. Davenport. Respiratory responses to over-pressurization blast injury in rats exposed to hypercapnia. FASEB J, 27:930.11, 2013.

Condrey, J.A., H.W. Tsai, S. Adams, K.W. Hegland and P.W. Davenport. Electromyographic pattern analysis of swallow in both the conscious and anesthetized rat. FASEB J, 27:390.12.

Tsai, H.W., J.A. Condrey, S. Adams and P.W. Davenport. The effect of tracheal occlusion on the load compensation response and the changes in inhibitory neurotransmitter in the brainstem of conscious rats. FASEB J, 27:1214.1, 2013.

Adams, S., J.A. Condrey, H.W. Tsai, V. Prima, S.I. Svetlov, C. Sumners and P.W. Davenport. Anxiety produced in rats by over-pressurization blast injury. ISARP Annual Meeting, 2012.

J.A. Condrey, S. Adams, H.W. Tsai, K.W. Hegland, V. Prima, S.I. Svetlov and P.W. Davenport. Electromyographic chewing pattern following blast-induced traumatic brain injury (BTBI). ISARP Annual Meeting, 2012.

Adams, S., J.A. Condrey, K.W. Hegland and P.W. Davenport. Cardiovascular and respiratory responses to photothrombotic middle cerebral artery stroke in anesthetized rats. FASEB J, 26:1091.60, 2012.

Condrey, J.A., S. Adams, K. Hegland and P.W. Davenport. Electromyographic chewing pattern following a MCA photothrombotic stroke. FASEB J, 26:704.20, 2012.

Tsai, H.W., J.A. Condrey, S. Adams and P.W. Davenport. The effect of high frequency oscillation (HFO) on the concentration of exhaled protein in canines. FASEB J, 26:905.21, 2012.

Adams, S., J.A. Condrey, H.W. Tsai, V. Prima, S.I. Svetlov, C. Sumners and P.W. Davenport. Anxiety produced in rats by over-pressurization blast injury. ISARP Annual Meeting, 2012.

Condrey, J.A., S. Adams, H.W. Tsai, K. Hegland, V. Prima. S.I. Svetlov and P.W. Davenport. Electromyographic chewing pattern following blast-induced traumatic brain injury (TBI). ISARP Annual Meeting, 2012.

Adams, S., C. Sumners, A.Freiria-Oliveira, M. McCowan, H.W. Li and D.A. Scheuer. Macrophage migration inhibitory factor acts in the PVN to attenuate the blood pressure response to stress. FASEB J, 25:843.7, 2011.

Hotchkiss, M.T., J. Hooker, S. Adams, K. Pate and P.W. Davenport. Electrocortical activity response to intermittent transient tracheal occlusion. FASEB J, 24:799.22, 2010.

P.Y. Chan, M. Hotchkiss, S. Adams and P.W. Davenport. Mechanosensory activation of the somatosensory cortex in unanesthetized rats. FASEB J, 24:799.21.

Adams, S., S. Burns and R. Braith. Endurance-trained people burn more fat calories at rest than sedentary people. American College of Sports Medicine (ACSM) Annual Meeting, 2008.

Nations, M., S. Burns, M. Hart and S. Adams. Effect of seven-week training course on resting energy expenditure. Medicine & Science in Sports & Exercise, 40(5):S255, 2008.

Adams, S., A.A. Abbott, M.A. Arms, A.J. Baxter, C.R. Becker. E.G. Dutcher, J.K. Edelbaum, L.N. Millham and K.J. Doyle. Instrumental activities of daily living influence heartland adults to walk. ACSM Annual Meeting, 2006.

Sherry Adams

SEMINARS AND PRESENTATIONS

Adams, S. Impaired respiratory performance up to a year following diagnosed concussion in collegiate athletes. Mid-Atlantic Regional Chapter of the American College of Sports Medicine (MARC-ACSM), invited speaker at the regional meeting, 2017.

Adams, S. Over-pressurization blast injury induced behavioral changes. Research Colloquium, Pfeiffer University, 2015.

Adams, S., J.A. Condrey, H.W. Tsai, S.I. Svetlov, K.W. Wang and P.W. Davenport. Somatosensory changes following blast-induced traumatic brain injury. International Society for the Advancement of Respiratory Psychophysiology (ISARP) Annual Meeting, 2014.

Adams, S. Over-pressurization blast injury induced respiratory and behavioral changes. Department of Physiological Sciences Seminar, University of Florida, 2013.

Adams. S. Mechanisms of traumatic brain injury respiratory apnea. Department of Physiological Sciences Seminar, University of Florida, 2012.

Adams, S., A.A. Abbott, M.A. Arms, A.J. Baxter, C.R. Becker. E.G. Dutcher, J.K. Edelbaum and L.N. Millham. Faculty Advisors: J.A. Clawson, J.R. Crooker, P.S. Decker, K.J. Doyle, F.J. Herrington, S.L. Mandali, K.S. Stark-Wroblewski, and B.J. Zimmer. Successful aging in the heartland: The challenge of preparing interdisciplinary healthcare teams. The National Conference for Undergraduate Research (NCUR), 2006.

REFEREED PUBLICATIONS

Tsai H., K. Fennelly, K.W. Hegland, S. Adams, J. Condrey, J.L. Hosford, and P.W. Davenport. Cough physiology in elderly women with nontuberculous mycobacterial (NTM) lung infections, J Appl Physiol, 2017.

Tsai H., J.A. Condrey, S. Adams, J. Wuerz, A. Specht and P.W. Davenport. The effects of internal airway percussion (IAP) new device on the concentration of exhaled protein in healthy humans and canines, J Pulm Med Respir Res 2016, 2: 006.

Adams, S., J.A. Condrey, H-W. Tsai, S.I. Svetlov, V. Prima and P.W. Davenport. Somatomotor and behavioral changes following traumatic brain injury, Neurol Volume 1.1: http://dx.doi.org/10.16966/noa.104 Open Access 2, 2015.

Adams, S., J.A. Condrey, H-W. Tsai, S.I. Svetlov and P.W. Davenport. Respiratory responses following blast-induced traumatic brain injury in rats. Respiratory Physiology & Neurobiology, Sep 18. pii: S1569-9048(14)00215-8. doi: 10.1016/j.resp.2014.08.015. PMID: 25242461, 2014.

Tsai, H.W., S. Adams, J. Condrey and P.W. Davenport. The effect of tracheal occlusion on respiratory load compensation and changes in neurons containing inhibitory neurotransmitter in the nucleus of the solitary tract in conscious rats. Respiratory Physiology & Neurobiology, Sep 9. pii: S1569-9048(14)00229-8. doi: 10.1016/j.resp.2014.09.002. PMID: 25218413, 2014.

Sherry Adams

Adams, S., A.A. Abbott, M.A. Arms, A.J. Baxter, C.R. Becker. E.G. Dutcher, J.K. Edelbaum and L.N. Millham. Faculty Advisors: J.A. Clawson, J.R. Crooker, P.S. Decker, K.J. Doyle, F.J. Herrington, S.L. Mandali, K.S. Stark-Wroblewski, and B.J. Zimmer. Successful aging in the heartland: The challenge of preparing interdisciplinary healthcare teams. Proceedings of NCUR, 735-741, 2006.