

SAMUEL R. WALTON

PhD, ATC, LAT

srwalton@email.unc.edu

Cell: (207) 991-0659

orcid.org/0000-0003-2647-5701

EDUCATION AND TRAINING

Postdoctoral Research Associate	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL <ul style="list-style-type: none"> ▪ Center for the Study of Retired Athletes ▪ Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center ▪ Cognitive Neuroscience of Memory Laboratory <p><i>Focus Areas:</i></p> <ul style="list-style-type: none"> ▪ Long-term health and changes in health status in current and former athletes ▪ Traumatic brain injury ▪ Structural and functional neuroimaging <p><i>Mentors:</i> Kevin Guskiewicz, PhD, ATC, FNATA, FACSM; Zachary Kerr, PhD, MPH; Kelly Giovanello, PhD.</p>	2019 - Present
Doctor of Philosophy	UNIVERSITY OF VIRGINIA <p><i>Degree:</i> PhD in Education (Kinesiology) <i>Emphases:</i> Sport-Related Concussion, Sports Medicine <i>Dissertation:</i> "Metabolism, Energy Balance, and Health-Related Quality of Life after Sport-Related Concussion." <i>Committee:</i> Jacob Resch, PhD, ATC (Co-Chair); Jay Hertel, PhD, ATC, FNATA, FACSM (Co-Chair); Donna Broshek, PhD; Steven Malin, PhD, FACSM; Sybille Kranz, PhD.</p>	2015 – 2019
Master of Education	UNIVERSITY OF VIRGINIA <p><i>Major:</i> Athletic Training (CAATE Accredited) <i>Thesis:</i> "The Utility of the SCAT3 Compared to Other Neuropsychological Tests Following Sport-Related Concussion."</p>	2012 – 2013
Bachelor of Science	UNIVERSITY OF SOUTHERN MAINE <p><i>Major:</i> Athletic Training (CAATE Accredited)</p>	2004 – 2008

SCHOLARLY APPOINTMENTS

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL; July 2019 to Present

Postdoctoral Research Associate: Center for the Study of Retired Athletes, Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, & Cognitive Neuroscience of Memory Laboratory

- Training in acquisition, processing, and analysis of neuroimaging data (structural and functional MRI, PET). Learning to use FreeSurfer, CONN, and MATLAB.
- Design and conduct multisite research projects for the study of long-term health-related outcomes in former professional and collegiate athletes.

- Coordinate dissemination strategies for ongoing projects; disseminate study findings as a lead or co-author of peer-reviewed manuscripts, refereed abstracts, and in presentations at local, national, and international research conferences.
- Participate in grant writing to fund ongoing and future investigations.
- Manage databases as well as process and prepare data for analyses. Utilize REDCap, Qualtrics, Excel, SPSS, SAS, R, and Jamovi for data collection, management, processing, analysis, and visualization.
- Create IRB documents, research protocols, surveys and clinical assessments. Assist with research participant study visits and contribute to writing grants to fund longitudinal studies.

Specific Ongoing Projects

Neurologic Function across the Lifespan: A Prospective, LONGitudinal, and Translational Study for Former National Football League Players (NFL-LONG)

- Description: An in-depth cross-sectional and longitudinal study of former NFL players utilizing self-reported measures of quality of life, function, and behaviors; as well as objective assessments with advanced neuroimaging (MRI and PET), biospecimens (e.g. genetics, markers of neuronal damage, etc.), and clinical neuropsychological testing.
- Role: Research Assistant
- Principle Investigators: Drs. William Meehan (Boston Children's Hospital), Kevin Guskiewicz (UNC-Chapel Hill), Michael McCrea (Medical College of Wisconsin), and Ruben Echemendia (Psychological and Neurobehavioral Associates, Inc.)
- Funding Agencies: National Football League & Boston Children's Hospital

NCAA 15-year Follow-up: Neurologic Health Outcomes in Young Former NCAA Athletes

- Description: A longitudinal study of former collegiate athletes who participated in a variety of collision, contact and non-contact sports between 1999-2001. Neurocognitive and psychological functioning, self-reported quality of life, clinical measures, and advanced MRI imaging were measured in a subset of participants.
- Role: Research Assistant
- Principle Investigators: Drs. Kevin Guskiewicz (UNC-Chapel Hill) and Michael McCrea (Medical College of Wisconsin).
- Funding Agencies: National Collegiate Athletic Association, UNC-Chapel Hill, and Medical College of Wisconsin

A Health Survey of Former Women's Soccer Players

- Description: Developed and administered a survey instrument to assess holistic health profiles of former female soccer players (collegiate & professional). Future phases of the study will incorporate longitudinal follow-up and in-person clinical assessments.
- Role: Co-PI
- Principle Investigators: Drs. Avinash Chandran (Datalys Center, UNC-Chapel Hill) and Samuel Walton (UNC-Chapel Hill)
- Funding Agencies: UNC-Chapel Hill

Selected Projects in Preparation

- A health survey and qualitative study of former men's and women's collegiate basketball players: Holistic health, mental well-being, and experiences transitioning to life after competitive sport.
- Pituitary volume and function in military service members with and without history of mTBI: Creating a machine learning algorithm to measure anterior pituitary volume, relating pituitary volumes to peripherally measured markers of hormonal function and chronic symptoms.
- Comparison of structural and functional connectivity in current and former football players across the lifespan: Assessment the relationships between age and concussion history on data-driven measures of structural and functional connectivity measured via multimodal MRI.

UNIVERSITY OF VIRGINIA; July 2015 to May 2019

Graduate Research Assistant: Exercise and Sport Injury Lab, Department of Kinesiology

- Assisted in the development, implementation and dissemination of findings from multiple studies in high school and collegiate students.
- Specific regular duties included creation of IRB documents, recruitment of participants, data collection, database creation and management, performing statistical analyses, and dissemination of study findings in peer-reviewed manuscripts and at national and international conferences.

Specific Projects

The Physiologic and Psychological Effects of Sport-Related Concussion (Dissertation Project)

- Description: Data collection for this study has been completed. This study included high school and collegiate student-athletes who sustained a sport-related concussion ($n = 28$) as well as matched controls ($n = 28$). Whole-body resting metabolic rate, substrate utilization, physical activity, dietary intake, health-related quality of life (TBI-QoL & Neuro-QoL), and clinical recovery metrics were measured acutely following injury and throughout the recovery/return to play process.
- Principal Investigators: Dr. Samuel Walton (Virginia, UNC-Chapel Hill)
- Funding Agencies: Doctoral research grants from the Mid-Atlantic Athletic Trainers' Association and Curry School of Education & Human Development

Sport Concussion in High School and Collegiate Athletes

- Description: Data collection for this study is ongoing. This study incorporates clinical baseline and postinjury assessments of high school and collegiate student-athletes. Primary measures include neuropsychologic testing, postural control, and self-reported assessments of symptoms, mood and kinesiophobia.
- Principal Investigators: Dr. Jacob Resch (Virginia)
- Funding Agencies: N/A

Non-Injurious Head Motion in Human Subjects

- Description: Data collection for this study has been completed. Twenty healthy males completed multiple assessments (anthropometric, neuropsychological postural stability, and MRI) before and after a series of three non-injurious head impacts with concurrent measurement of head kinematics and neck muscle electromyography.
- Principal Investigators: Drs. Matthew Panzer (Virginia) and Jacob Resch (Virginia)
- Funding Agencies: BioCore, LLC.

The Impact of Athletic Trainers on the Incidence, Management and Outcomes for Sports Related Concussion Injuries in High School Athletes

- Description: Data collection for this study has been completed. A study of the effects of access to an athletic trainer on incidence of concussion, adherence to state concussion management laws, clinical and quality of life outcomes in high school student athletes in Virginia and Wisconsin.
- Principal Investigators: Dr. Jacob Resch (Virginia), Dr. Timothy McGuine (Wisconsin-Madison)
- Funding Agencies: National Athletic Trainers' Association Foundation

PUBLICATIONS

Published Peer-Reviewed Research Articles (indicates corresponding author when not first author)*

Walton SR, Kranz S, Malin SK, Broshek DK, Hertel J, Resch JE. Factors associated with energy expenditure and energy balance in acute sport-related concussion. *J Athl Train*. Online ahead of print. DOI: 10.4085/359-20

Brett BL, **Walton SR**, Kerr ZY, Nelson LD, Chandran A, DeFreese JD, Echemendia RJ, Guskiewicz KM, Meehan WP III, McCrea M. Distinct latent profiles of neurobehavioral functioning among former National Football League (NFL) players: An NFL-LONG study. *Neurosurgery, Neurology, and Psychiatry (Accepted)*.

Reynier KA, Alshareef A, Sanchez EJ, Shedd DF, **Walton SR**, Erdman NK, Newman BT, Giudice JS, Funk JR, Broshek DK, Druzgal TJ, Resch JE, Panzer MB. Evaluating the effect of muscle activation on head kinematics during non-injurious head impacts in volunteers. *Ann Biomed Eng.* 2020; <https://doi-org.libproxy.lib.unc.edu/10.1007/s10439-020-02609-7>

Walton SR, Broshek DK, Kranz S, Malin SK, Hertel J, Resch JE. Mood, psychological, and behavioral factors of health-related quality of life throughout recovery from sport concussion. *J Head Trauma Rehabil.* 2020; ePub ahead of print. DOI: 10.1097/HTR.0000000000000604

Daniell B, Bernitt C, **Walton SR***, Malin SK, Resch JE. Effects of concussion on metabolism and caloric intake: A preliminary investigation. *Translational Journal of the American College of Sports Medicine.* 2020; 5(12):e000129. DOI: 10.1249/TJX.0000000000000129

Walton SR, Malin SK, Kranz S, Broshek DK, Hertel J, Resch JE. Whole-body metabolism, carbohydrate utilization, and caloric energy balance after sport concussion. *Sports Health.* 2020; 12(4):382-389. DOI: 10.1177/1941738120923869

Guskiewicz KM, **Walton SR**. The changing landscape of sport concussion. *Kinesiology Review.* 2020; 9(1):79-85. DOI: 10.1123/kr.2019-0059

Rosenblum D, **Walton SR**, Erdman NK, Broshek DK, Hart J, Resch JE. If not now, when? An absence of neurocognitive and postural stability deficits in collegiate athletes with one or more concussions. *J Neurotrauma.* 2020; 37(10):1211-1220. DOI: 10.1089/neu.2019.6813

Walton SR, Broshek DK, Freeman JR, Hertel J, Meyer JP, Erdman NK, Resch JE. Institutionally-based ImPACT test normative values may differ from manufacturer-provided normative values. *Arch Clin Neuropsychol.* 2019; 35(3):275-282. DOI: 10.1093/arclin/acz068

Walton SR, Broshek DK, Freeman J, Cullum CM, Resch JE. Response to a letter to the Editor-in-Chief regarding our article: Valid but invalid: suboptimal ImPACT© baseline performance in university athletes. *Med Sci Sports Exerc.* 2018; 50(10):2178-2179. DOI: 10.1249/MSS.0000000000001665

Walton SR, Broshek DK, Freeman J, Cullum CM, Resch JE. Valid but invalid: suboptimal ImPACT© baseline performance in university athletes. *Med Sci Sports Exerc.* 2018; 50(7):1377-1384. DOI: 10.1249/MSS.0000000000001592

Resch JE, Rach A, **Walton S**, Broshek DK. Sport concussion and the female athlete. *Clin Sports Med.* 2017; 36(4):717-739. DOI: 10.1016/j.csm.2017.05.002

Manuscripts Currently in Peer-Review

Walton SR, Kerr ZY, Brett B, Chandran A, DeFreese JD, Smith-Ryan A, Stoner L, Echemendia R, McCrea M, Meehan III WP, Guskiewicz KM. Health-promoting behaviors and concussion history are associated with cognitive function, mood-related symptoms, and emotional-behavioral dyscontrol in former National Football League players: An NFL-LONG study. *Br J Sports Med.*

Walton SR, Kerr ZY, Brett B, Chandran A, DeFreese JD, Echemendia RJ, Meehan III WP, McCrea M, Guskiewicz KM. Mild Cognitive Impairment and dementia among former National Football League players over 50 years of age: An NFL-LONG study. *N Engl J Med*.

Brett BL, Nader A, **Walton SR**, Kerr ZY, Guskiewicz KM, McCrea M. Disparate associations of years of football play and head impact exposure with comprehensive neurobehavioral health outcomes in former collegiate football players. *Neurosurgery*.

Brett BL, Kerr ZY, **Walton SR**, Chandran A, DeFreese JD, Mannix R, Echemendia RJ, Meehan III WP, Guskiewicz KM, McCrea MM. Longitudinal trajectory of depression symptom severity and the influence of concussion history and physical function over an 18-year period among former National Football League (NFL) players: an NFL-LONG study. *JAMA Neurol*.

Manuscripts in Preparation for Peer-Review

Walton SR, Kerr ZY, Brett B, Chandran A, DeFreese JD, McCrea M, Guskiewicz KM, Meehan III WP, Echemendia RJ. Concerns regarding cognitive dysfunction among former NFL players and their relationships with self-reported concussion history: An NFL-LONG study.

DeFreese JD, Kerr ZY, **Walton SR**, Brett BL, Chandran A, Mannix R, Echemendia RJ, Meehan III WP, McCrea M, Guskiewicz KM. Concussion history, retirement-related psychosocial factors, and mental health outcomes in former NFL players: and NFL-LONG study.

Chandran A, **Walton SR**, Nedimyer AK, DeFreese JD, Weight E, DeCicco J, Carneiro K. A preliminary study of reproductive and pelvic floor health in former elite collegiate women's soccer players.

Barczak-Scarboro NE, Powell JR, **Walton SR**, *Military Affiliates*, Mihalik JP. Mental health symptoms associate with brain region volumes in Special Operations Forces combat service members.

DeFreese JD, **Walton SR**, Chandran A, Kerr ZY. 2020: A time of transition with clear implications for athlete transition research.

Thompson XD, Erdman NK, **Walton SR**, Broshek DK, Resch JE. A longitudinal analysis of neurologic impairment six months following unrestricted return to play from sport concussion.

Donahue CC, Thompson XD, **Walton SR**, Erdman NK, Resch JE. Time to reporting symptom-free does not differ by sport concussion subtype.

Erdman NK, **Walton SR**, Schutzer J, Eith J, Norte S, Resch JE. The test-retest reliability of a computerized measure of postural stability in high school athletes.

Non-Refereed Publications

When it Comes to Chronic Traumatic Encephalopathy (CTE): Perhaps Mother Doesn't Know Best. *Sports Medicine Research: In the Lab & In the Field*. November 7, 2018.
<https://www.sportsmedres.org/2018/11/when-it-comes-to-chronic-traumatic.html>

Is Normative Data the New Normal? *Sports Medicine Research: In the Lab & In the Field*. December 5, 2016.
<https://www.sportsmedres.org/2016/12/is-normative-data-new-normal.html>

ACCEPTED REFEREED ABSTRACTS

* *Won National Research Award, ^ Nominated for National Research Award*

Kerr ZY, **Walton SR**, Brett BL, DeFreese JD, Weight E, Chandran A, Echemendia RJ, McCrea M, Meehan III WP, Guskiewicz KM. Post-Career Transition Experiences of Professional American Football Players Retiring from Brain-Health Concerns. 14th World Conference on Injury Prevention & Safety Promotion 2020; Conference postponed: November 2022.

Walton SR, Broshek DK, Hertel J, Kranz S, Malin SK, Resch JE. Factors Influencing Energy Expenditure and Balance in Acute Sport Concussion. NATA Clinical Symposia; Virtual Conference: June 2020.

Carrington H, **Walton SR**, Erdman NK, Broshek DK, Resch JE. The Effect of Sex on Length of Recovery from Sport Concussion in Collegiate Athletes. NATA Clinical Symposia; Virtual Conference: June 2020.

Chandran A, Nedimyer AK, **Walton SR**, Brett BL, DeFreese JD, Nader A, Kerr ZY, McCrea MM, Guskiewicz KM. Concussion History is Associated with Elevated Physical and Psychological Symptomology in Former Collegiate Football Players. NATA Clinical Symposia; Virtual Conference: June 2020.

Walton SR, Brett BL, Chandran A, DeFreese JD, Giovanello KS, Nader A, Kerr ZY, McCrea MM, Guskiewicz KM. Associations of Concussion and Playing History with Clinical Outcomes in Young College Football Alumni. American College of Sports Medicine Annual Meeting; Virtual Conference: May 2020.

Chandran A, Nedimyer AK, **Walton SR**, DeFreese JD, Carneiro K, Weight E, Mihalik JP, DeCicco JP, Kerr ZY. Development of a General Health Survey of Former Female Student-Athletes. Society for Advancement of Violence and Injury Research (SAVIR) Annual Conference; Philadelphia, PA: April 2020.

*^Carrington H, Thompson X, Erdman NK, **Walton SR**, Resch JE. The Effect of Hormonal Contraceptives on Length of Recovery in Female Collegiate Athletes. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Manetz K, **Walton SR**, Erdman NK, Thompson X, Resch JE. The Influence of Concussion History on Kinesiophobia in Collegiate Athletes. NATA Clinical Symposia; Las Vegas, NV: June 2019.

^Monge J, Green RM, **Walton SR**, Erdman NK, Thompson X, Marshall AN, Hertel JN, Resch JE. Predicting Time to Symptom Resolution in Collegiate Athletes Diagnosed with Sport Concussion: A Cross-Validation Study. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Paizs SC, **Walton SR**, Higgins MJ, Resch JE. Ultrasound Imaging of Neck Musculature in Individuals with and without History of Concussion. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Resch JE, **Walton SR**, Broshek DK, Goodkin HP, Comstock RD, Broglio SP, McGuine TA. Adherence to State Concussion Legislation in High Schools with Varying Levels of Access to Athletic Trainers. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Rosenblum DJ, **Walton SR**, Hart J, Resch JE. The Influence of Concussion History on Postural Control Stability in Collegiate Athletes. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Thompson X, Erdman NK, **Walton SR**, Resch JE. Persistent Neurological Impairment is Not Present Six Months Following Unrestricted Return-to-Play from Concussion. NATA Clinical Symposia; Las Vegas, NV: June 2019.

Carrington HW, Erdman NK, **Walton SR**, Broshek DK, Resch JE. The Influence of Hormonal Contraceptives on Baseline ImPACT™ Performance. Sports Neuropsychology Society Annual Concussion Symposium; Seattle, WA: May 2019.

Walton SR, Malin SK, Kranz S, Broshek DK, Hertel J, Resch JE. Effects of Concussion on Whole-Body Energy Metabolism and Caloric Intake: A Preliminary Investigation. American College of Sports Medicine Annual Meeting, 2019. Orlando, FL.

Resch JE, **Walton SR**, Erdman NK, Broshek DK. The cumulative effect of mild traumatic brain injury on ImPACT® performance in collegiate athletes. Military Health System Research Symposium; Kissimmee, FL: August 2018.

Walton SR, Bernitt CJ, Daniell B, Malin SK, Resch JE. Resting metabolic rate following sport concussion: a preliminary analysis. American Academy of Neurology Sport Concussion Conference; Indianapolis, IN: July 2018.

Erdman N, **Walton SR**, Eith J, Schutzer J, Leitch L, Norte S, Cullum CM, Resch JE. The stability of ImPACT® baseline test performance over a 3-year period in high school athletes. American Academy of Neurology Sport Concussion Conference; Indianapolis, IN: July 2018.

Walton SR, Broshek DK, Goodkin HP, Broglio SP, Resch JE. Effects of gender and sports-related concussion history on self-reported baseline measures of health-related quality of life and symptomology. NATA Clinical Symposia; New Orleans, LA: June 2018.

Daniell B, **Walton SR**, Malin SK, Higgins MJ, Resch JE. An investigation of the effects of concussion on metabolism and caloric intake. NATA Clinical Symposia; New Orleans, LA: June 2018.

Walton SR, Broshek DK, Goodkin HP, Broglio SP, Resch JE. The effects of sex and concussion history on health-related quality of life and symptomology. Canadian Athletic Therapists Association National Conference; Quebec City, QC: May/June 2018.

Walton SR, Broshek DK, Freeman JR, Rach AM, Erdman NK, Resch JE. Predictors of high and low baseline ImPACT® performance. Sports Neuropsychology Society Annual Concussion Symposium; Washington, DC: May 2018.

Walton SR, Broshek DK, Goodkin HP, Broglio SP, Resch JE. Gender, concussion history, and self-reported health-related quality of life in adolescent athletes. Curry Research Conference; Curry School of Education – University of Virginia: April 2018.

Rach AM, **Walton SR**, Broshek DK, Resch JE. What does age have to do with it? Investigating the influence of age on ImPACT® subtests. Sports Neuropsychology Society Annual Concussion Symposium; Washington, DC: May 2018.

Erdman NK, **Walton SR**, Broshek DK, Resch JE. The influence of sleep duration on the baseline ImPACT® assessment of high school athletes. Sports Neuropsychology Society Annual Concussion Symposium; Washington, DC: May 2018.

Walton S, Broshek DK, Freeman JR, Meyer JP, Hertel J, Resch JE. Are institutionally-based normative values for ImPACT scores different than manufacturer-provided normative values? NATA Clinical Symposia; Houston, TX: June 2017.

Bernitt CJ, Hoffmann K, Goetschius J, **Walton SR**, Hart JM, Malin S, Saliba SA, Resch JE. The effects of concussion on energy expenditure in adolescents. NATA Clinical Symposia; Houston, TX: June 2017.

Erdman N, **Walton S**, Schutzer J, Eith J, Norte S, Resch JE. Test-retest reliability of a computerized measure of postural stability in high school athletes. NATA Clinical Symposia; Houston, TX: June 2017.

Walton S, Broshek DK, Freeman JR, Cullum CM, Resch JE. Valid but invalid: suboptimal ImPACT © performance in university athletes. 5th International Conference on Concussion in Sport; Berlin, Germany: October 2016.

Resch JE, **Walton SR**, Freeman JR, Broshek DK. The sport concussion baseline assessment: an investigation of sex and sport differences. 5th International Consensus Conference on Concussion in Sport; Berlin, Germany. October 2016.

Walton S, Acocello S, Broshek DK, Hertel J, Saliba S. Comparison of Sport Concussion Assessment Tool 2 scores to computerized and paper and pencil neurocognitive assessments following sport concussion. NATA Clinical Symposia; Indianapolis, IN: June 2014.

PROFESSIONAL PRESENTATIONS

Invited Oral Presentations

Speaker, “Exercise, Sleep, and Nutrition for Brain Health Promotion.” International Congress for Athlete Brain Health – Inaugural Meeting; Salt Lake City, UT: October 2019.

Speaker, “Better Understanding of Baseline Concussion Testing”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2017.

Lab Instructor, “Dual Task Assessment in Concussion”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2017.

Speaker, “Clinical Measures of Sport Concussion”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2016.

Lab Instructor, “Considerations for Sport Concussion Assessment”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2016

Lab Instructor, “Novel Clinical Measures for Sport Concussion”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2016.

Lab Instructor, “Neuropsychological Testing in Athletic Training”; The Art and Science of Sports Medicine Conference; University of Virginia, June 2013.

GRANTS AND CONTRACTS

Funded/Completed

Sponsor: National Football League & Boston Children’s Hospital

PIs: Drs. William Meehan (Boston Children’s Hospital), Kevin Guskiewicz (UNC-Chapel Hill), Michael McCrea (Medical College of Wisconsin), and Ruben Echemendia (Psychological and Neurobehavioral Associates, Inc.)

Role: Postdoctoral Research Assistant

Title: Neurologic Function across the Lifespan: A Prospective, LONGitudinal, and Translational Study for Former National Football League Players (NFL-LONG)

Status: Funded, Ongoing

Amount: \$14,698,132.00

Period: January 2019 – December 2024

Sponsor: Curry School of Education – University of Virginia

PI: Samuel Walton

Role: Principle Investigator

Title: The Physiologic and Psychological Effects of Concussion

Status: Completed

Amount: \$999.00

Period: June 2018 – May 2019

Sponsor: Mid-Atlantic Athletic Trainers' Association

PI: Samuel Walton

Role: Principle Investigator

Title: Metabolic Changes Following Sport-Related Concussion

Status: Completed

Amount: \$1000.00

Period: November 2017 – April 2019

TEACHING AND MENTORSHIP

Lecturer/Instructor of Record

Cadaveric Musculoskeletal Anatomy Lab (Undergraduate)

University of Virginia
Fall 2017 – 2018

- Content: Guided prosections of human cadaveric specimens for 50 students.
- Responsibilities: Syllabus creation, planning lab sessions and assessments, grading.

Assessing Muscular Strength

University of Maine
Spring 2011

- Content: Manual muscle testing for athletic training students.
- Responsibilities: Weekly lecture and lab session, assessment of competence for learned skills.

Graduate Teaching Assistant

Neuroscience of Exercise

University of Virginia
Spring 2016 – 2018

- Content: Neurophysiologic response to physical activity in healthy and pathological populations.
- Responsibilities: Part-time lecturing role, course content creation, assessment creation and grading, student feedback, office hours.

Musculoskeletal Anatomy Lecture

University of Virginia
Fall 2016 – 2018

- Content: Human musculoskeletal anatomy.
- Responsibilities: Part-time lecturing role, course content creation, assessment creation and grading, student feedback, office hours.

Cadaveric Musculoskeletal Anatomy Lab (Undergraduate)

University of Virginia

- Content: Guided prosections of human cadaveric specimens for 50 students. Fall 2015 – 2016
- Responsibilities: Syllabus creation, planning lab sessions and assessments, grading.

Cadaveric Musculoskeletal Anatomy Lab (Graduate)

University of Virginia
Summer 2016 – 2017

- Content: Guided dissections of human cadaveric specimens for post-professional athletic training masters students.
- Responsibilities: Syllabus creation, planning lab sessions and assessments, grading.

Sports Medicine Learning Labs

University of Virginia
2012 – 2013

- Content: Therapeutic electrical stimulation, as well as crutch, boot, cane and brace fitting and walking.
- Responsibilities: Created and instructed hands-on activities to teach undergraduate students the above clinical skills.

Guest Lecturer

Sport Concussion

St. Anne's-Belfield
December 2016

- Content: An interactive overview of the etiology, clinical presentation, assessment, and treatment for sport concussion.

Joint Mobilization Laboratory

Longwood University
Winter 2015

- Content: Manual and instrument assisted joint mobilization laboratory.

Introduction to Rehabilitation

Longwood University
Fall 2014

- Content: A 3-part lecture on rehabilitation strategies in athletic training (e.g. progression, goal-setting, etc.).

Preceptor/Approved Clinical Instructor

Longwood University
& University of Maine
2008 – 2015

- Mentored and taught students daily in CAATE accredited undergraduate ATP's
- Verbal and written evaluations of professionalism, knowledge and skills
- Taught and assessed competencies and proficiencies at all levels of the undergraduate programs
- Supervised student care of patients in the clinic allowing them autonomy whenever appropriate

Research Mentor

Student/Trainee

Title of Project

Project Year(s)

Anna Castellano
(Undergraduate Thesis)

"The Relationship between Pituitary Volume and IGF-1 Blood Biomarker Levels following Traumatic Brain Injury."

2019 – 2020

Daniel Rosenblum
(Graduate Thesis)

"The Influence of Concussion history on Postural Stability in Collegiate Athletes."

2017 – 2018

Samantha Paizs (Graduate Thesis)	“Neck Muscle Thickness and Activation in Female Athletes with Varying Histories of Concussion.”	2017 – 2018
Brooke Daniell (Graduate Thesis)	“An Investigation of the Effects of Concussion on Metabolism and Caloric Intake.”	2016 – 2017
Catherine Hess (Graduate Thesis)	“The Reliability of a Novel Pupilometer Device.”	2016 – 2017
Candace Bernitt (Graduate Thesis)	“The Influence of Concussion on Energy Expenditure in Adolescents.”	2015 – 2016

CLINICAL APPOINTMENTS

UNIVERSITY OF VIRGINIA; July 2015 to 2019

Concussion Assessment Coordinator

- Administered baseline and post-injury follow-up assessments to UVA student-athletes including symptomology, mood state, kinesiophobia, postural control using the Sensory Organization Test and neurocognitive assessment with the ImpACT test battery.
- Prepared clinical reports for, and communicated with, physicians, athletic trainers and a neuropsychologist to provide objective data for clinical decision making for injured student-athletes.

UNIVERSITY OF VIRGINIA; October 2015 to May 2016

Graduate Assistant Athletic Trainer – Men’s Tennis

- Won the NCAA Team National Championship
- Responsible for daily healthcare of athletes, coverage of practices, events and team travel as well as daily therapy and treatments in the athletic training clinic
- Implemented injury prevention programs as well as rehabilitation programs for the student athletes
- Coordination and facilitation of care with physicians
- Worked with nutritionist, strength and conditioning staff and sport psychologist to provide care for the whole student athlete

LONGWOOD UNIVERSITY; June 2013 to June 2015

Assistant Athletic Trainer – Women’s Basketball, Men’s and Women’s Tennis, and Cheering

- Lead the creation and implementation of Longwood University’s Return to Learn Protocol for students suffering from concussion injuries
- Assisted in the creation and adoption of sports medicine policies including Longwood University’s Concussion Management Plan
- Responsible for daily healthcare of athletes, coverage of practices, events and team travel as well as daily therapy, injury prevention and treatments in the athletic training clinic
- Assisted in travel, practice and event coverage of other Longwood sports including men’s basketball, field hockey, soccer, softball and baseball
- Coordination and facilitation of care with physicians, physical therapists and other healthcare professionals
- Clinical Preceptor for students in the CAATE approved Athletic Training Program

UNIVERSITY OF VIRGINIA; June 2012 to June 2013

Graduate Assistant Athletic Trainer – Men’s and Women’s Swimming and Diving

- Responsible for daily healthcare of athletes, coverage of practices, events and team travel as well as daily therapy and treatments in the athletic training clinic
- Implemented injury prevention programs as well as rehabilitation programs for the student athletes
- Coordination and facilitation of care with physicians including general medical, orthopedic, ENT, cardiac, spine, neuropsychology, oncology, and emergency medicine specialists
- Worked with nutritionist, strength and conditioning staff and sport psychologist to provide care for the whole student athlete

UNIVERSITY OF MAINE; August 2008 to May 2012

Assistant Athletic Trainer – Football, Track and Field, Women’s Hockey, and Women’s Basketball

- Responsible for daily healthcare of athletes, coverage of practices, events and team travel as well as daily therapy and treatments in the athletic training clinic
- Implemented injury prevention programs as well as rehabilitation programs for the student athletes
- Coordination and facilitation of care with physicians including general medical, osteopathic, orthopedic, podiatric, chiropractic, emergency and massage specialists
- Work with a nutritionist to track and administer interventions
- Approved Clinical Instructor (ACI) for students in the CAATE accredited Athletic Training Program

PROFESSIONAL SERVICE

For the Profession

- World Federation of Athletic Training and Therapy
 - Co-Chair: Marketing and Promotions Committee; 2016-Present
 - Social Media Coordinator; 2018-Present
 - Webmaster; 2016-2018
- International Congress for Athlete Brain Health
 - Brain Health Promotion working group member, 2019-Present
- Peer Reviewer:
 - Sports Medicine
 - American Journal of Sports Medicine
 - Journal of Athletic Training
 - Athletic Training and Sports Health Care
 - Gait and Posture
- Moderator at the NATA Clinical Symposia
 - Dr. Carolyn Emery, June 2018. “Sport-related Concussion: Moving Upstream Towards Prevention.”

For the University

- Tomorrow’s Professor Today Program
 - Advanced training and peer feedback program for aspiring university faculty.

For the Community

- Annual baseline concussion assessments with St. Anne’s-Belfield School; 2015 to 2018
- UVA Health System Traumatic Brain Injury and Stroke Awareness Fair; 2015 to 2017

HONORS AND AWARDS

- National Athletic Trainers' Association Foundation – PFATS Jerry Rhea Scholarship; 2018
 - Awarded to an athletic trainer who stands out among their peers in the pursuit of a graduate degree.
- Curry School of Education Faculty Scholarship, University of Virginia; 2018
 - Awarded for being an outstanding graduate student.
- All-University Graduate Teaching Award, University of Virginia; 2018
 - Awarded for being among the top 20 graduate teaching assistants at the University of Virginia.
- Outstanding Graduate Teaching Assistant in Kinesiology, Curry School of Education; 2017
 - Awarded for being an outstanding graduate teaching assistant in the Kinesiology department.
- Joe Gieck Graduate Sports Medicine Scholarship, University of Virginia; 2016
 - Awarded to an outstanding graduate student in Sports Medicine or Athletic Training.
- Dean's List – all 8 undergraduate semesters
 - Achieved a GPA of 3.4 or higher each semester
- Maine Scholars Award – 2004
 - Awarded for being an outstanding high school student in need of financial assistance.
- Presidential Freedom Award in Service Learning, 2004
 - Awarded for completing over 100 hours of service learning during high school.

CERTIFICATIONS AND LICENSURE

- Board Certified Athletic Trainer (ATC), #70802201
- Licensed Athletic Trainer in Virginia, #0126001872
- National Provider Identifier (NPI) #1881132942
- CPR/AED for the Professional Rescuer, American Red Cross
- Functional Movement Screen (FMS)
- Sound Assisted Soft Tissue Mobilization (SASTM)

PROFESSIONAL AFFILIATIONS

- International Congress for Athlete Brain Health since 2019
- American College of Sports Medicine Student Member since 2016
- American Academy of Neurology Student Member 2016 to 2019
- McCue Society since 2013
- Mid-Atlantic Athletic Trainers Association since 2012
- Virginia Athletic Trainers Association since 2012
- Maine Athletic Trainers Association 2008 to 2012
- Eastern Athletic Trainers Association 2008 to 2012
- National Athletic Trainers Association: Member in good standing since 2008