

**SCOTT CHARLES LIVINGSTON, PhD, PT, ATC, SCS**  
Assistant Professor, Physical Therapy & Rehabilitation Sciences Programs  
Department of Rehabilitation Sciences, College of Health Sciences  
Director, Concussion Assessment Research Laboratory (CARL)

**I. GENERAL INFORMATION**

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Certificate or Specialty Board Licensure

National Athletic Trainers' Association Board of Certification (NATABOC),  
Certified Athletic Trainer (ATC)  
Issued: 2001  
Certification no. 020102230

American Board of Physical Therapy Specialties (ABPTS), Sports Physical  
Therapy (SCS)  
Issued: 2006  
License/certificate number: 10539

Military Status: Separated (Honorably Discharged), United States Navy, December 1998

**II. EDUCATION**

Ohio University, Bachelor of Science in Physical Therapy (*summa cum laude*)  
June 1988

University of North Carolina at Chapel Hill, Master of Science in Physical  
Therapy/Human Movement Science  
May 1994

University of Virginia, Doctor of Philosophy in Kinesiology  
January 2007

**III. PROFESSIONAL EXPERIENCES**

Physical Therapist, United States Navy – Medical Service Corps, August 1988 to  
February 1996:

Head, Physical Therapy Department, Naval Hospital Bremerton, Washington;  
August 1994 to February 1996

Staff Physical Therapist, U.S. Marine Officer Candidate School, Quantico,  
Virginia; June 1994 to August 18, 1994

Head, Physical Therapy Department, Naval Hospital Subic Bay, Republic of the Philippines; August 1990 to July 1992

Staff Physical Therapist, Naval Hospital Portsmouth, Virginia; October 1988 to July 1990

Staff Physical Therapist (per diem), Hamot Sports Medicine, Hamot Medical Center, Erie, Pennsylvania; April 2001 to June 2002.

Athletic Trainer/Physical Therapist (pro bono), Department of Athletics, Gannon University, Erie, Pennsylvania; October 1998 to May 2002.

Staff Physical Therapist (per diem), Hamot Sports Medicine, Hamot Medical Center, Erie, Pennsylvania; April 2001 to June 2002.

Head Athletic Trainer, Woodberry Forest School, Woodberry Forest, Virginia August 2002 to June 2004.

Staff Physical Therapist/Athletic Trainer (per diem), The Performance Place Physical Therapy and Sports Medicine, Charlottesville, Virginia; September 2004 to July 2005.

Instructor/Lecturer (graduate assistant), Division of Kinesiology, Department of Human Services, Curry School of Education, University of Virginia; September 2002 to May 2006.

#### **IV. ACADEMIC APPOINTMENTS**

Assistant Professor, Master of Physical Therapy Program, Gannon University (Erie, Pennsylvania); October 1996 to May 2002.

Director, Assistant Professor, Sport and Exercise Science Program , Gannon University (Erie, Pennsylvania); September 2000 to July 2002.

Assistant Professor (tenure accruing) , Program in Physical Therapy, School of Medicine and Health Sciences, George Washington University, Washington, DC; August 2006 to July 2009.

Assistant Professor (regular title series, tenure accruing), Department of Rehabilitation Sciences, College of Health Sciences, University of Kentucky, August 2009 to present.

#### **V. TEACHING ACTIVITY**

University of Kentucky (Doctor of Physical Therapy and Doctor of Philosophy in Rehabilitation Sciences Programs), 2009 to present:

PT834 Introduction to Physical Therapy and Bioethics (instructor, Fall 2009)

PT654 Motor Control (course director, Spring 2010 & 2011)

PT686 Specialty Elective: Athletic Taping Techniques (Summer 2010)

PT831 Neurophysiology (co-instructor, Fall 2010)  
RHB710 Neuroplasticity (guest lecturer, Fall 2010)  
RHB744 Advanced Topics in Motor Development (co-director, Spring 2011)

The George Washington University (DPT Program)

PT404 Kinesiology in Rehabilitation Medicine (course director)  
PT405 Functional Neuroanatomy and Electrodiagnostics (instructor)  
PT411 Foundations of Physical Therapy Examination (course director)  
PT413 Physical Agents and Electrotherapy Modalities (course director)  
PT404 Kinesiology in Rehabilitation Medicine (course director)  
PT415 Management of Musculoskeletal dysfunction I (instructor)  
PT416 Management of Musculoskeletal Dysfunction II (course director)

The George Washington University (Undergraduate Athletic Training Education Program)

EXSC158 Prevention and Care of Athletic Injuries (instructor)

University of Virginia (BS Kinesiology/Sports Medicine Program)

EDHS353 Human Anatomy (instructor)  
EDHS758 Anatomical Basis of Sports Medicine (Course Coordinator, instructor)  
EDHS589 Current Issues in Sports Medicine (instructor)  
EDHS451 Emergency Medical Care (instructor)  
EDHS557 Art & Science of Sports Medicine (instructor)  
EDHS841 Orthopaedic Basis of Athletic Training (instructor)  
EDHS741 Pathology and Rehabilitation of Athletic Injuries (Course director, instructor)  
EDHS859 Seminar in Athletic Training (Course director)

Gannon University (MPT Program)

GT507 Foundations in Human Movement (Course Coordinator and Lab Director)  
GX503 Physical Therapy Practice I (Course Coordinator and Lab Director)  
GX 505 Physical Therapy Practice II (Course Coordinator and Lab Director)

Gannon University (BS Sport & Exercise Science Program)

SPRT160 Aerobic Training (Course director)  
SPRT161 Weight Training (Course director)  
SPRT162 General Fitness and Weight Control (SPRT162)  
SPRT200 Introduction to Sport and Exercise Science (SPRT200)  
SPRT210 First Aid/Cardiopulmonary Resuscitation (SPRT210)  
SPRT300 Sports First Aid/Sports Safety Training (SPRT300)  
SPRT312 Exercise Physiology Lab (SPRT312)  
SPRT412 Kinesiology Lab (SPRT412)  
SPRT490 Special Topics in Sport and Exercise Science (SPRT490)  
SPRT440 Independent Study in Sport and Exercise Science (Course coordinator)

Continuing Education / Workshops

“Sports-Related Mild Traumatic Brain Injury” (90-minute educational session & home-study course available online at APTA Learning Center)  
APTA Annual Conference and Exposition (Baltimore, MD), June 2009

“Current Practice Guidelines for the Evaluation and Management of Sports-Related Concussion” (90-minute educational session) with Scott Piland, PhD, ATC of the University of Southern Mississippi  
APTA Annual Conference and Exposition (National Harbor, MD) June 2011

## **VI. ADVISING ACTIVITY**

### Current PhD Students (4):

Andrea Cripps, ATC (University of Kentucky, Rehabilitation Sciences, expected graduation – 2014), Committee Co-chair

Rachel Rowe (University of Kentucky, Department of Anatomy and Neurobiology, expected graduation 2013), Committee member

Oya Topas (University of Kentucky, Department of Rehabilitation Sciences, Communication & Speech Disorders, expected graduation 2014), Committee member

Terry Leahy, PT (Nova Southeastern University/Langston University, School of Physical Therapy, expected graduation - 2011), Committee member

### Current DPT Students (12):

Lindsay Bosch (2012), Amy Dail (2012), Andrew Dornbrook (2013), Christopher Distler (2013), Dan Friedlander (2012), Tyler Geib (2013), Brent Gibson (2012), Jeremy Lawson (2012), Megan Lusby (2013), James Melvin (2012), Savannah Mills (2012), and Casey Pierce (2013).

### Current MS Students (3):

Kathryn Buehrle, ATC (graduate student in UK’s Athletic Training Program, expected graduation – 2012), thesis committee chair

Brandon DeSantis, ATC (graduate student in UK’s Athletic Training Program, expected graduation – 2012), thesis committee chair

Kimberly Weindel, ATC (graduate student in UK’s Athletic Training Program, expected graduation – 2012), thesis committee chair

### Undergraduate (BIO395 Independent Study) Students:

Peter Ostling (pre-med, junior, expected graduation – 2012, BIO395 Spring & Fall semesters 2011)

Jerry Coleman, II (pre-med, junior, expected graduation – 2012, BIO395 Spring & Fall semesters 2011)

Kristen McGraw (pre-med, junior, expected graduation – 2012, BIO395 Spring & Fall semesters 2011)

DPT Program Academic Advising

First-year students (6): Whitney Brooks, Matthew Cohen, Christopher Distler, Meaghan Koshman, John Lockart II, Kalin Mutter

Second-year students(3): Lindsey Bosch, Jordan Northcutt, Savannah Mills

**VII. ADMINISTRATIVE ACTIVITIES and UNIVERSITY SERVICE**

Program:

Admission and Curriculum Committees, Division of Physical Therapy (August 2009-present)

RHB Subcommittee “Disciplinary Specific and Cognate Requirements of RHB Program” (spring 2011).

Department:

College: CHS Academic Affairs Committee, Co-chair 2010-2011, Committee member 2011-present.

Student-Veterans Health Advocacy Initiative (appointed by the Dean) (spring 2011-present)

University:

Spinal Cord and Brain Injury Research Center (SCoBIRC), Faculty Associate (September 2009-present)

“Saddle Up Safely Campaign” for the 2010 World Equestrian Games (August 2009-May 2011)

“Posters@Capitol” Selection Committee, UK Undergraduate Research Program (UKURP) (November 2010)

**VIII. SPECIAL ASSIGNMENTS**

Research Associate, Veterans Affairs Medical Center (Lexington, KY), Department of Veterans Affairs – appointed October 2010.

University of Kentucky *Spinal Cord and Brain Injury Research Center (SCoBIRC)*

Faculty Associate, appointed September 2009

**IX. HONORS**

*Alpha Eta Health Care Honors Society*, George Washington University Chapter, inducted May 2008

*David H. Perrin Doctoral Dissertation Award*, University of Virginia – Curry School of Education, April 2006

## **X. PROFESSIONAL ACTIVITY and PUBLIC SERVICE**

### *Membership in Professional Societies*

***American Physical Therapy Association***, September 1988 to present

Clinical Electrophysiology Section, June 1989 to present

Education Section, October 1996 to present

Orthopaedic Section, October 1988 to present

Sports Section, March 1998 to present

Brain Injury Special Interest Group, March 2009 to present

***American College of Sports Medicine***, October 1998 to present

***National Athletic Trainers Association***, March 2000 to present

Collegiate Athletic Trainers' Society, October 2001 to August 2002.

Secondary Schools Athletic Trainers' Society, August 2002 to present.

***Federation of State Boards of Physical Therapy***, Standards of Competence Task Force, May 2006 to March 2007

***Federation of State Boards of Physical Therapy***, Associate Member, February 2007 to present

***Society for Neuroscience***, July 2007 to present

***American Congress of Rehabilitation Medicine***, September 2007 to present

Brain Injury Special Interest Group, September 2007 to present

***Brain Injury Alliance of Kentucky [BIAK]*** – member since September 2010; appointed to Board of Directors (3-year term) beginning January 2011.

***Kentucky Concussion Alert Network [KCAN]***, created July 2010.

***Kentucky Physical Therapy Association*** Research & Education Committee – member, appointed October 2009

**“Saddle Up Safely” Campaign** for the 2010 World Equestrian Games, University of Kentucky Medical Center, August 2009 to present

***Southeast Athletic Trainers' Association (SEATA)*** Research and Education Committee –November 2009-present.

*Journal Reviewer:*

*Journal of Sport Rehabilitation*, Editorial Board, 3-year term beginning January 2010

*Journal of Athletic Training*, Manuscript Reviewer, August 2006 to present.

*Journal of Orthopaedic and Sports Physical Therapy*, Manuscript Reviewer, August 2006 to present.

*American Journal of Physical Medicine and Rehabilitation*, Manuscript Reviewer, May 2010 to present.

*Textbook and Chapter Reviewer:*

*Clinical Neuroscience for the Rehabilitation Professional*, Pearson Education, chapters reviewed: Introduction, 1-9; pending publication in early 2012.

*Other:*

Annual meeting educational programming proposal reviewer, *National Athletic Trainers' Association*, July 2010 to present

## **XI. RESEARCH and/or CREATIVE PRODUCTIVITY**

### **PUBLICATIONS**

#### Published Journal Articles (Papers in Refereed Journals)

Livingston SC, Ingersoll CD. Intra-rater reliability of a transcranial magnetic stimulation technique to obtain motor evoked potentials. *International Journal of Neurosci* 2008;118:239-256.

Livingston SC, Saliba EN, Goodkin HP, Hertel JN, Ingersoll CD. "A Preliminary Investigation of Motor Evoked Potential Abnormalities Following Sport-Related Concussion" *Brain Injury*. June 2010;24(6):904-913.

Livingston SC, Goodkin HP, Ingersoll CD. The influence of gender, hand dominance, and upper extremity length on motor evoked potentials. *J Clin Monitoring Computing*. 2010;24(6):427-436.

Livingston SC. The neurophysiology behind concussion signs and symptoms. *International Journal of Athletic Training & Therapy*. Accepted for publication June 28, 2011. In press, pending publication in September 2011; 16(5):5-9.

#### Published Monographs, Books, Book Chapters:

Livingston SC. "Relationship between transcranially-induced motor-evoked potentials, self-reported symptoms, and neurocognitive test performance following acute concussion among collegiate athletes" [dissertation] UMI Dissertation Publishing/ProQuest Information and Learning, © 2007.

Livingston SC. "Relationship between transcranially-induced motor-evoked potentials, self-reported symptoms, and neurocognitive test performance following acute concussion among collegiate athletes" [monograph] VDM Verlag Publishers, 2008.

#### Publications Submitted or In Press

Livingston SC, Goodkin HP, Hertel JN, Saliba EN, Barth JT, Ingersoll CD. Differential rates of recovery following acute sport-related concussion: electrophysiologic, symptomatic and neurocognitive indices. *Journal of Clinical Neurophysiology* (In Press; initial submission February 2010; accepted July 2010).

Slavova S, Bunn TL, Singleton MD, Bush HM, Livingston SC. Statewide emergency department visits and hospitalizations with concussion diagnoses. *Injury Prevention* (submitted for publication, July 2011)

Livingston SC, Burch D, Clapp T, Cripps A, Gream H, Puckett E. The head shake sensory organization test (HS-SOT): normative data and correlation with dynamic visual acuity testing. *Journal of Vestibular Research* (submitted for publication, July 2011).

Livingston SC. Clinical Case Report: Persistent electrophysiologic changes associated with acute cerebral concussion in a collegiate baseball player. *Clinical Journal of Sports Medicine* (submitted July 2011).

#### Abstracts

Livingston SC. Persistent electrophysiologic changes associated with acute cerebral concussion in a collegiate baseball player. *Med Sci Sport Exer.* 2011.43(5):S134.

Livingston SC. Recovery from sport-related concussion: a preliminary investigation comparing motor-evoked potentials, post-concussion symptoms, and neuropsychological test scores [abstract] *J Athl Training.* 2010; 45(3):S29-S30.

Livingston SC, Hertel JN, Saliba EN, Barth JT, Goodkin HP, Ingersoll CD. Motor-evoked potential amplitudes are correlated with prior number of concussions in the acutely concussed collegiate athlete [abstract] *J Head Trauma Rehabil.* 2009;24(5):400-401.

Livingston SC, Ingersoll CD, Goodkin HP, Saliba EN, Hertel JN, Barth JT. Relationship between neurocognitive test performance and transcranial magnetically-evoked motor potentials following concussion among collegiate athletes [abstract] *Arch Clin Neuropsych* 22(7):837, September 2007.

Livingston SC, Goodkin HP, Barth JT, Saliba EN, Hertel JT, Ingersoll CD. Acutely concussed collegiate athletes demonstrate differences in motor evoked potentials compared to non-concussed athletes [abstract] *J Athl Training* 42(2): S32, June 2007.

Livingston SC, Saliba EN, Hertel JN, Goodkin HP, Barth JT, Ingersoll CD. Transcranial motor-evoked potentials are not correlated with self-reported symptoms following acute concussion among collegiate athletes [abstract] *Medicine & Science in Sports & Exercise*, May 2007. 39(5):S330.

Livingston SC, Kennedy CH, Freeman J, Broshek DK, Barth JT. Toward objective sideline neurophysiological detection of mild TBI: Reliability of pupilometry [abstract] *Archives of Clinical Neuropsychology* September 2006. 21(6): 542.

Livingston SC, Ingersoll CD. Motor Evoked Potentials Obtained Through Transcranial Magnetic Stimulation Demonstrate High Intra-rater Reliability [abstract]. *J Clin Monitoring Computing*.2006;20(1):57-65.

Livingston SC, Ingersoll CD. A preliminary investigation of collegiate athletes' knowledge of concussions [abstract]. *J Athl Training* 39(2): S-17, 2004.

## **GRANT ACTIVITY**

### Approved and Funded – Extramural

#### Approved, Funded, Completed - Extramural

National Operating Committee on the Standards of Athletic Equipment [NOCSAE]  
*Motor Evoked Potential Abnormalities Following Acute Concussion Among High School and Collegiate Athletes: Relationship to Post-Concussive Symptoms, Neuropsychological Test Scores, and Balance Error Scores*

Study Coordinator (25% effort). PI: Christopher D. Ingersoll, University of Virginia

Total amount: \$155,000.00, Duration: January 2006 to May 2008

Status: project completed (June 2008)

National Athletic Trainers' Association [NATA] Research and Education Foundation  
*Motor Evoked Potential Differences Between Concussed and Non-concussed Athletes as Determined by Transcranial Magnetic Stimulation*

Study Coordinator (75 % effort). PI: Christopher D. Ingersoll, University of Virginia

Total amount: \$2500.00, duration: August 2005-July 2006

Status: completed (July 2006).

### Not Funded – Extramural

U.S. Army Special operations Command

BAA Biomedical Research Topics

*Identification of Vestibular and Otolith Dysfunction Associated with Combat-Related Mild Traumatic Brain Injury*

Role: PI

Total amount requested: \$316K

Date submitted: June 2009 [not funded]

National Institute of Arthritis and Musculoskeletal and Skin Diseases

PAR09-031

*The Relative Contribution of Spinal Reflex Excitability and Cortical Excitability*

Role: subcontractor (15% effort). PI: Brian Pietrosimone, PhD, ATC, University of Toledo

Total amount requested: \$150K

Date submitted: October 2009 [not funded]

American College of Sports Medicine

*Diffusion Tensor Imaging and Functional Magnetic Resonance Imaging of Acute Sport-Related Concussion*

Role: Principal investigator. Co-investigators David Powell, PhD and James Jagger, MD

Total amount requested: \$10K

Date submitted: January 2010 [not funded]

Kentucky Science and Engineering Foundation (KSEF)

Electrophysiologic Assessment of Individuals with Mild Traumatic Brain Injury:

Diagnosis and Management Using Transcranial Magnetic Stimulation

Role: PI

Total amount requested: \$192K

Date submitted: January 2010 [not funded]

Southeast Athletic Trainers' Association (SEATA)

*Assessment and Management of the Athlete with Mild Traumatic Brain Injury*

Role: PI

Total amount requested: \$2000.00

Date submitted: February 2010 [not funded]

National Football League Medical Charities

*Assessment and Management of Sport-Related Concussion Using Non-invasive Electrophysiologic Testing*

Role: PI. Co-investigators: James Jagger, MD, Robert Hosey, MD, David Powell, PhD, University of Kentucky

Total amount requested: \$100K

Date submitted: June 2010 [not funded]

Department of Defense

Congressionally Directed Medical Research Program

Cognitive Rehabilitation for Traumatic Brain Injury

*Alternative Behavioral and Electrophysiologic Treatments of Cognitive Rehabilitation for Chronic Combat-Related Mild Traumatic Brain Injury*

Role: subcontractor; Principal Investigator: CPT Michael Dretsch, US Army Research Lab, Fort Rucker AL

Total amount requested: \$2.0 M

Date submitted: August 2010 [not funded]

Approved and Funded – Intramural

CHS Small Research Grants Initiative

*Functional Neuroimaging and Electrophysiologic Testing in Acute Cerebral Concussion Assessment*

Amount funded: \$5250.00

Not Funded – Intramural

Center for Clinical and Translational Science Pilot Research Program

Alternative Approaches to the Assessment and Management of Sport-Related

Concussion: Non-invasive Neuroimaging and Electrophysiologic Testing

Role: PI. Co-investigators: David Powell, PhD & James Jagger, MD, University of Kentucky

Total amount requested: \$15, 500.00

Date submitted: December 2010 [not funded]

Proposals Submitted

National Athletic Trainers' Association Research and Education Foundation

*Optimizing the Diagnosis of Mild Traumatic Brain Injury and Associated Vestibular Deficits*

Total amount requested: \$150K

Pre-proposal accepted July 2010; full grant application due August 2012.

## **RESEARCH PROJECTS**

IRB Protocol #09-0670-FIV (initial approval November 2009)

*Assessing the Brain and Spinal Pathways Using Transcranial Magnetic Stimulation (TMS)*

Role: PI. Co-investigators: James Jagger, MD; Robert Hosey, MD; Scott Black, MD; David Greene, ATC (EKU); Toufic Fakhoury, MD; Matthew Graber, MD; Dan Han, PsyD.

Status: ongoing baseline data collection through UK athletics; ongoing post-concussion assessment through UK, EKU, Asbury University, and Fayette County Public Schools.

IRB Protocol #10-0371-P1H (initial approval June 2010)

*Motor Evoked Potentials from the Lower Extremities Elicited by Transcranial Magnetic Stimulation: A Reliability and Correlation Study*

Role: PI. Co-investigators: Dan Friedlander, Brent Gibson, James Melvin.

Status: open to enrollment; active recruitment of subjects. Data collection expected to be completed by November 2011.

IRB Protocol #10-0565-P2H (initial approval August 2010)

*Evaluating Balance in Normal, Healthy Young Adults: Establishing Normative Data for the Head Shake Sensory Organization Test (HS-SOT)*

Role: PI. Co-investigators: Andrea Cripps, Toni Clapp, Danielle Burch, Elizabeth Puckett, Heather Gream

Status: Closed to enrollment; project completed . Results submitted to the *Journal of Vestibular Research* (under review, June 2011)

IRB Protocol # 10-0880-F6A (initial approval March 2011)

*Functional neuroimaging and Electrophysiologic Testing in Acute Cerebral Concussion*

Role: PI. Co-investigators: Scott Black, MD; Robert Hosey, MD; David Powell, PhD; Dan Han, PsyD

Status: pending MRISC Service Grant submission in August 2011 for funding to conduct MR scanning. Open to enrollment.

IRB Protocol #11-0220-P1H (initial approval April 2011)

Investigation of Factors Contributing to Altered Postural Control and Balance following Mild Traumatic Brain Injury

Role: PI. Co-investigators: Kim Weindel, Brandon DeSantis, Kathryn Buehrle, Andrea Cripps, Dan Han, PsyD

Status: open to enrollment; active recruitment of subjects. Data collection expected to be completed by Spring 2012.

IRB Protocol #11-0485-P2H (initial approval July 2011)

*The Reliability of Dynamic Visual Acuity Testing in Asymptomatic Young Adults:*

Role: PI. Co-investigators: Jeremy Lawson, Any Dail, Savannah Mills, Lindsay Bosch.

Status: open to enrollment; active recruitment of subjects. Data collection expected to be completed by October 2011.

## **OTHER CREATIVE ACTIVITY**

### Professional Presentations (local)

#### *Sports Concussion Summit 2011*

June 24, 2011 (Cardinal Hill Rehabilitation Hospital, Lexington, KY)

Planning committee

Presenter:

“Pediatric Concussions: Are Children Different from Adults?”

#### *Sports Concussion Summit 2010*

July 9, 2010 (Cardinal Hill Rehabilitation Hospital, Lexington, KY)

Planning committee

Presenter:

“Myths, Misconceptions, and the Challenge of Concussion in Sports”

“Current Concepts of Rehabilitation & Guidelines for Return-to-Play”

“Current Practice Guidelines for the Evaluation and Management of Concussion”  
(Current Concepts Lecture, invited speaker). Kentucky Athletic Trainers’ Society –  
Annual Meeting & Symposium, June 2010

“Assessment of Sport-Related Concussion,” Blue Grass Chapter of the Society for Neuroscience (Lexington, KY). May 2010.

“Lower Extremity Motor Evoked Potential Latencies Are Not Correlated With Leg Length or Leg Dominance” (poster) Sean Fine, MS, Daniel Alcorn, BS† Scott Livingston, PhD [faculty advisor] *George Washington University Medical Center 14<sup>th</sup> Annual Research Day*, April 2009. Winner, Best Graduate Health Sciences Poster.

“Neurocognitive Test performance and Transcranial Magnetically-Evoked Motor Potentials following Concussion among Collegiate Athletes” (poster) *George Washington University Medical Center 13<sup>th</sup> Annual Research Day*, March 2008

“Transcranial Magnetic Stimulation as a Tool for Examining the Effects of Mild Sports and Combat-Related Traumatic Brain Injury” (poster), *George Washington University Inaugural Research Day*, November 2007.

“Relationship Between Transcranially-Induced Motor Potentials, Self-Reported Symptoms, and Neurocognitive Test Performance Following Acute Concussion Among Collegiate Athletes,” (poster), *George Washington University Medical Center 12<sup>th</sup> Annual Research Day*, March 2007

#### Professional Presentations (regional)

“Recovery from Sport-Related Concussion: A Comparison of Motor-evoked Potentials, Post-concussion Symptoms, and Neurocognitive Deficits” [oral presentation], *Kentucky Physical Therapy Association* [Frankfort, KY]. August 2010.

“Differential rates of recovery from sport-related concussion: a preliminary investigation comparing motor-evoked potentials, post-concussion symptoms, and neuropsychological test performance” [oral] *Southeast Athletic Trainers’ Association (SEATA) Annual Research Seminar*, Panama City Beach, FL; March 2010 (accepted, February 2010).

“Electrophysiologic Evidence for the Acute Affects of Concussion: A Transcranial Magnetic Stimulation (TMS) Study of Collegiate Athletes” (oral presentation). 34<sup>th</sup> Annual Art & Science of Sports Medicine Symposium, *University of Virginia* (Charlottesville, VA), June 2006.

“Quantitative Assessment of the Pupillary Light Reflex Under Various Ambient Light Conditions” (poster presentation). *Mid-Atlantic Athletic Trainers’ Association Annual Meeting*, May 2006.

“Understanding Concussion Symptomatology: Insight into the Pathophysiology of Concussion in Sports” (oral presentation) *Virginia Athletic Trainers’ Association Annual Meeting and Symposium*, January 2006.

“Transcranial Magnetic Stimulation in the Assessment of Sports-Related Concussions” (oral presentation) 33<sup>rd</sup> Annual Art & Science of Sports Medicine Symposium, *University of Virginia*, June 2005.

“Use of Pupillometry in Concussion Assessment” (oral presentation)  
32<sup>nd</sup> Annual Art & Science of Sports Medicine Symposium, *University of Virginia*, June 2004.

“Clinical Assessment of Sports-Related Concussion” (oral presentation). *Mid-Atlantic Athletic Trainers’ Association Annual Conference*, May 2004.

“An Update on Concussion Assessment and Management” (oral presentation)  
31<sup>st</sup> Annual Art & Science of Sports Medicine Symposium, *University of Virginia*, June 2003.

#### Professional Presentations (National)

“Current Practice Guidelines for the Evaluation & Management of Sports-Related Concussion” (90-minute educational session)

Co-presented with Scott Piland, PhD, ATC, University of Southern Mississippi  
PT2011 – Annual Conference & Exposition of the American Physical Therapy Association 2011. National Harbor, MD: June 2010.

“Persistent electrophysiologic changes associated with acute cerebral concussion in a collegiate baseball player” [oral clinical case report]. American College of Sports Medicine - 58<sup>th</sup> Annual Meeting & World Congress on Exercise is Medicine. Denver CO: June 2011.

“Recovery from sport-related concussion: a preliminary investigation comparing motor-evoked potentials, post-concussion symptoms, and neuropsychological test scores” [oral]. *National Athletic Trainers’ Association Annual Meeting*, Philadelphia, PA: June 2010.

“Motor-evoked potential amplitudes are correlated with prior concussion history among acutely concussed collegiate athletes” (platform) 7<sup>th</sup> Annual Conference on Brain Injury of the *North American Brain Injury Society*, October 2009.

“Sports-Related Mild Traumatic Brain Injury” (educational session)  
*American Physical Therapy Association Annual Conference & Exposition*, June 2009.

“Teaching Therapeutic Modalities: What Drives the Decision-Making Process?” (educational workshop) *APTA Combined Sections Meeting*; February 2009.

“Electrophysiological Evidence for the Acute Effects of Concussion in the Collegiate Athlete: A Transcranial Magnetic Stimulation Study” (poster)  
*National Academy of Neuropsychology*, Sports Concussion Summit, October 2008

“Motor Evoked Potential Abnormalities in Acutely Concussed Collegiate Athletes” (poster) *APTA Combined Sections Meeting*; February 2008.

“Relationship Between Neurocognitive Test Performance and Transcranial Magnetically-Evoked Motor Potentials Following Concussion Among Collegiate Athletes” (poster) *National Academy of Neuropsychology*, November 2007.

“Motor Evoked Potential Differences Between Concussed and Non-concussed Athletes as determined by Transcranial Magnetic Stimulation” (platform presentation) *National Athletic Trainers’ Association Annual Meeting and Symposium*, June 2007.

“Transcranial Motor-Evoked Potentials are Not Correlated with Self-Reported Symptoms Following Acute Concussion Among Collegiate Athletes” (poster presentation) *American College of Sports Medicine Annual Meeting*, May 2007.

“Relationship Between Transcranial Magnetically-Evoked Potentials and Subjects’ Gender, Hand Dominance, Arm Length and Height” (platform presentation) *American Society of Electroneurodiagnostic Technologists*, July 2006.

“Toward Objective Sideline Neurophysiological Detection of Mild TBI: Reliability of Pupilometry” (poster presentation) *National Academy Neuropsychology*, October 2006.

“Motor Evoked Potentials Obtained Through Transcranial Magnetic Stimulation Demonstrate High Intra-rater Reliability” (platform presentation) *American Society of Neurophysiological Monitoring Annual Conference*, May 2005.

“An Investigation of Collegiate Athletes’ Knowledge of Concussions” (platform presentation) *National Athletic Trainers’ Association Annual Conference & Symposium*, June 2004.

“Motor and Sensory Conduction of the Tibial Nerve Through the Tarsal Tunnel” (platform presentation) *American Physical Therapy Association Annual Combined Sections Meeting*, February 1999.

#### Professional Presentations (international)

“Persistence of Motor Evoked Potential Abnormalities Following Acute Concussion” [poster] *Society for Neuroscience*, November 2008.

“Motor Evoked Potential Amplitudes are correlated with Prior Number of Concussions in Acutely-Concussed Collegiate Athlete,” *American Medical Society for Sports Medicine*; accepted January 2008, not presented.

“MEP Amplitudes Induced by Transcranial Magnetic Stimulation are Reduced in the Acutely Concussed Collegiate Athlete” (platform presentation). *Society for Neuroscience*, October 2006.

## **XII. OTHER**

### Professional Development

*Sports-Related Neurotrauma Symposium*, University of North Carolina at Chapel Hill (9.75 CEUs), April 2011

*Write Winning Grants Seminar*

Grant Writers' Seminar & Workshops and the University of Kentucky (8 hrs), May 2011

Pre-proposal accepted for full grant writer's workshop, July 2011

*NeuroCom Clinical Integration Seminar* (20 hrs), NeuroCom International, Clakamas OR, April 2010

Veterans Affairs - Employee Education System, "*Traumatic Brain Injury*" (4CEUs), June 2011

UK Proposal Development Office / Office of Research Integrity training:

- Grant getting tips (March 2009)
- NIH responsible conduct of research (RCR) requirements (July 2010)
- NIH update - Office of Policy for Extramural Research Administration fall 2010)
- Who and what you should know to jump start your research program at UK (November 2010)
- Clinical research update: human research protection (January 2011)

