

# **Samuel J. Wilson, PhD**

Assistant Professor of Kinesiology

Department of Health Sciences & Kinesiology

Georgia Southern University

Hollis 2117A

Phone: (912) 478 - 2117

Email: [sjwilson@georgiasouthern.edu](mailto:sjwilson@georgiasouthern.edu)

---

## **Educational Training:**

**2018** Doctor of Philosophy **The University of Mississippi**, University, MS

Department of Health, Exercise Science & Recreation Management

Major Area: Biomechanics / Neuromechanics

Research Concentration: Ergonomics and Fall Prevention

**Doctoral Dissertation:** The Slippery Slope Between Falling and Recovering: An Examination of Sensory and Somatic Factors Influencing Recovery After a Slip.

**2015** Master of Science **The University of Mississippi**, University, MS

Department of Health, Exercise Science & Recreation Management

Major Area: Neuromechanics

Minor Area: Exercise Physiology

Research Concentration: Ergonomics and Fall Prevention

**Masters' Thesis:** The Influence of Casual Footwear on Human Balance.

**2012** Bachelor of Science **The University of Mississippi**, University, MS

Department of Health, Exercise Science & Recreation Management

Major Area: Exercise Science

**Professional Certifications:**

Interdisciplinary Certificate in Applied Statistics (ICAS)

University of Mississippi – Graduate School

**Employment History:**

2018 – Present     *Assistant Professor of Kinesiology*

Department of Health Sciences & Kinesiology

Georgia Southern University

2012-2018        Graduate Teaching Assistant, Department of Health, Exercise Science, and  
Recreation Management, University of Mississippi, Oxford MS

**Research Experience:**

2018 – Present     Georgia Southern University – Biomechanics Lab

Assistant Research Professor

2013 – 2018        University of Mississippi Applied Biomechanics Laboratory

Graduate Research Assistant (2013-Present)

2015-Present      University of Mississippi Applied Biomechanics Laboratory

Graduate Student Lab Director (2016-Present)

2015-Present      Sally McDonnell Barksdale Honors College, University of Mississippi

Graduate Student Advisor – Honors Thesis Students

**Curriculum Experience:****Georgia Southern University****Graduate Courses**

KINS 6131 – Data Analysis in Kinesiology

KINS 7235 – Instrumentation and Techniques in Biomechanics

## **Undergraduate Courses**

KINS 3230 – Motor Control, Coordination, & Skill

## **University of Mississippi**

### **Graduate Courses**

HP 626 – Statistical Analysis I (Invited Guest Lecture)

### **Undergraduate Courses**

ES 446 – Biomechanics of Human Movement

ES 344 – Aging in the 21<sup>st</sup> Century

ES 351 – Measurement & Statistics in Exercise Science

ES 338 – Motor Learning and Control

ES 349 – Physiology of Exercise Laboratory

ES 447 – Biomechanics of Human Movement Laboratory

ES 457 – Exercise Testing & Prescription Laboratory

HP 203 – First Aid & CPR

EL 156 – Jogging

EL 151 – Weight Lifting

## **Research Funding:**

### **Wilson, SJ**

*Impact on Human Gait and Postural Control While Walking in Golf Specific Footwear*

University of Mississippi Graduate Student Council Research Grant 2015

### **Role: Primary Investigator**

Funding Request: \$1000.00

Status: Not Funded

Last updated: 8/5/18

**Wilson, SJ**, Garner, JC

*The Use of Physical Activity in Attenuating the Age related Loss of Motor Units.*

ACSM Foundation Doctoral Student Research Grant

**Role: Primary Investigator**

Funding Request: \$4,923.00

Status: Not Funded

**Wilson, SJ**, Garner, JC

*Injury Prevention in the Roofing Industry: The Role of Skeletal Muscle Damage*

National Institute for Occupational Safety and Health/Education Research Center

**Role: Primary Investigator**

Funding Request: \$11,995

Status: Not Funded

### ***Published Manuscripts***

1. **Wilson, SJ**, Garner, JC, & Loprinzi PD. The Influence of Multiple Sensory Impairment on Functional Balance and Difficulty with Falls Among U.S. Adults. *Preventive Medicine*, 87, 41-46, 2016.
2. Williams, CC, Gdovin JR, Allen, CR, **Wilson, SJ**, Cazás-Moreno, VL, Ossenheimer, C, Garner, JC. Strength and conditioning considerations for collegiate dance. *Strength and Conditioning Journal*, 38(2): 88-95, 2016.
3. Chander H, Morris CE, Wade C, **Wilson SJ**, Garner JC & Loftin M. Balance Performance in Alternative Footwear. *Journal of Footwear Science*, 8(3): 165-174, 2016.
4. Williams, CC; Gdovin, JR; **Wilson, SJ**; Cazas-Moreno, VC; Eason, JD; Hoke, EL; Allen, CR; Wade, C; Garner, JC. The effects of various weighted implements on baseball swing kinematics in collegiate baseball players. *Journal of Strength and Conditioning Research.* (Accepted – In Press)
5. **Wilson SJ**, Williams CC, Gdovin JR, Eason JD, Chander H, Wade C, & Garner JC. The Influence of an Acute Bout of Whole Body Vibration on Human Postural Control Responses. *Journal of Motor Behavior.* (Accepted - In Press)
6. Morris, CE., Chander, H., **Wilson, SJ.**, Loftin, M., Wade, C., & Garner, JC. Impact of Alternative Footwear on Human Energy Expenditure. *Journal of Human Sport and Exercise*, 12(4), 1220-1229, 2017.

Last updated: 8/5/18

7. Gdovin, JR; Williams, CC; **Wilson, SJ**; Cazas-Moreno, VC; Eason, JD; Hoke, EL; Allen, CR; Chander, H; Wade, C; Garner, JC. The effects of athletic footwear on ground reaction forces during a side step cutting maneuver on artificial turf. *International Journal of Kinesiology & Sports Science* (In-Press).
8. Hill, CM, **Wilson, SJ**, Mouser, JG, Donahue, PT, Chander, H. Motor Adaptation During Repeated Motor Control Testing: Attenuated Muscle Activation Without Changes in Response Latencies. *Journal of Electromyography and Kinesiology* (In-Press).

### ***Manuscripts in Review***

1. Garner, JC, **Wilson, SJ**, Gdovin, JR, Williams, CC, Eason, JD, Hoke, EL, Chander, H, Williams, N, Wade, C. The Impact of Golf Specific Footwear on Human Balance. *Journal of Sports Biomechanics.* (In-Review)
2. Chander H, Knight AC, Garner JC, Wade, C, Carruth D, **Wilson SJ**, Gdovin JR & Williams CC. Impact of military type footwear and load carrying workload on postural stability. *Ergonomics.* (In-Review).
3. Donahue, PT, Beiser, E, **Wilson, SJ**, Garner, JC. The relationship between measures of lower body peak power, anthropometrics and baseball pitching velocity in elite professional baseball pitchers. *Journal of Strength and Conditioning Research.* (In-Review).
4. **Wilson SJ**, Donahue PT, Williams CC, Hill CM, Waddell DE, Loenneke JP, Wade C, & Garner JC. Lower Extremity Corrective Events During The Slip Recovery Response Between Slip-Induced Falls and Recoveries. *Journal of Biomechanics.* (In-Review).
5. **Wilson SJ**, Donahue PT, Williams CC, Hill CM, Waddell DE, Bentley JP, Bass MA, & Garner JC. Postural Control Measures May Provide Insight Into the Importance of Sensory Integration and Motor Control Strategies Used During Slip Recovery. *Gait & Posture.* (In-Review).
6. **Wilson SJ**, Donahue PT, Williams CC, Hill CM, Chander H, Garner JC, & Waddell DE. Is it all in your Head? The Possible Role of Corticospinal Demand in Slip Recovery Responses. *Journal of Neurophysiology.* (In-Review).

### ***Manuscripts in Preparation***

1. **Wilson, SJ**, Gdovin, JR, Williams, CC, Eason, JD, Chander, H, Williams, N, Garner, JC. Neuromuscular Function of the Lower Extremities when Exposed to Golf Specific Footwear. (Data reduction and analysis in progress)
2. Hill, CM, **Wilson, SJ**, Williams, CC, Luginsland, LA, Chander, H. Down-Regulation of Spinal Reflexes when Exposed to Whole Body Vibration. (Data collection in progress)

3. Gdovin, JR, **Wilson, SJ**, Williams, CC, Eason, JD, Chander, H, Williams, N, Wade, C, Garner, JC. The Influence of Golf Specific Footwear and Workloads on Human Gait (Data reduction and analysis in progress)

***Abstracts/Oral Presentations:***

1. **Wilson SJ**, Chander H, Morris CE, Wade C & Garner JC. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015
2. Chander H, Morris CE, **Wilson SJ**, Knight AC, Holmes ME, Wade C & Garner JC. Impact of Alternative Footwear on Balance Perturbations. SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015.
3. DeBusk H, Chander H, Morris CE, **Wilson SJ**, Knight AC, Holmes ME, Hill CM, Wade C & Garner JC. The Effect of Commonly Used Alternative Footwear on Balance. SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015.
4. Hill CM, Chander H, Morris CE, **Wilson SJ**, Knight AC, Holmes ME, DeBusk H, Wade C & Garner JC. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. SEACSM Annual Meeting, Jacksonville, FL, February 12-14, 2015.
5. **Wilson SJ**, Chander H, Morris CE, Garner JC, & Wade C. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.
6. DeBusk H, Chander H, Morris CE, **Wilson SJ**, Knight AC, Holmes ME, Hill CM, Wade C & Garner JC. The Effect of Commonly Used Alternative Footwear on Balance. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.
7. Garner JC, Chander H, Morris CE, **Wilson SJ**, & Wade C. Impact of Alternative Footwear on Balance Perturbations. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.
8. Hill CM, Chander H, Morris CE, **Wilson SJ**, Knight AC, Holmes ME, DeBusk H, Wade C & Garner JC. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.

9. **Wilson SJ**, Chander H, Morris CE, Garner JC, Waddell DE & Wade C. Alternative Footwear's Influence on Muscle Activation Patterns of the Lower Leg Following a One Mile Walk. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Columbus, OH, August 5-8, 2015.
10. Eason JD, **Wilson SJ**, Gdovin JR, Williams CC, Hoke EL, Chander H, & Garner JC. Effects of whole body vibration on maximal voluntary isometric contraction and percent muscle activation during balance perturbations. *40th Annual Meeting of the American Society of Biomechanics*, Raleigh, NC, August 2-5, 2016.
11. Gdovin JR, Williams CC, **Wilson SJ**, Cazás-Moreno VL, Eason JD, Hoke EL, Fu YC, Wade C, Garner JC. The effects of American football cleats and soccer cleats on vertical jump performance. *American Society of Biomechanics (ASB) Annual Meeting*, Raleigh, NC. August 2-5 2016.
12. Williams CC, Dabbs NC, Gdovin JR, **Wilson SJ**, Cazas-Moreno VL, Eason JD, Hoke EL, Fu YC, Wade C, Garner JC. The effects of various weighted implements on baseball swing kinematics in collegiate baseball players. *NSCA Annual Meeting*, New Orleans, LA. July 6-9. National Strength and Conditioning Association.
13. Chander H, Garner JC, Wade C, Knight AC, **Wilson SJ** & Fu YC. Human Balance in Occupational Footwear with an Extended Duration Workload. *40<sup>th</sup> Annual Meeting of the American Society of Biomechanics*, Raleigh, NC, August 2-5, 2016.
14. **Wilson SJ**, Gdovin JR, Williams CC, Eason JD, Chander H, & Garner JC. Applications of Whole Body Vibration: Are Spinal Modifications Playing a Role? *40th Annual Meeting of the American Society of Biomechanics*, Raleigh, NC, August 2-5, 2016.
15. Garner, JC, **Wilson, SJ**, & Chander, HC. The Effect of Whole Body Vibration on Reaction Time during Balance Perturbations. *University of Mississippi Medical Center Research Day*. March, 2016, Jackson, MS
16. Gdovin JR, **Wilson SJ**, Williams CC, Eason JD, Hoke EL, Luginsland LA, Hill CM, Donahue PT, Davis RE, Chander H, Wade C, Garner JC. The acute effects of golf specific footwear on reaction time latencies. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18 2017.
17. Williams CC, **Wilson SJ**, Gdovin JR, Eason JD, Hoke EL, Luginsland LA, Hill CM, Donahue PT, Davis RE, Chander H, Wade C, Garner JC. The influence of golf specific footwear on whole body reaction times. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18 2017.

18. Eason JD, **Wilson SJ**, Gdovin JR, Williams CC, Hoke EL, Luginsland LA, Hill CM, Donahue PT, Chander H, Wade C, Garner JC. The effects of golf shoe type on balance equilibrium scores. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18, 2017.
19. **Wilson SJ**, Gdovin JR, Williams CC, Eason JD, Hoke EL, Luginsland LA, Hill CM, Donahue PT, Davis RE, Chander H, Wade C, Garner JC. The Effects of Golf Specific Footwear on Human Balance. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18 2017.
20. EL. Hoke, **SJ. Wilson**, JR. Gdovin, CC. Williams, JD. Eason, LA. Luginsland, CM. Hill, PT. Donahue, H. Chander, C.Wade, M. Green, and JC. Garner. Acute Effects of Golf Specific Footwear on Bilateral Balance. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18 2017.
21. Luginsland LA, **Wilson SJ**, Gdovin JR, Williams CC, Eason JD, Hoke EL, Hill CM, Donahue PT, Chander H, Wade C, Garner JC. The Acute Influence of Golf Specific Footwear on Balance Equilibrium Scores. *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Greenville, SC. February 16-18 2017.
22. **Wilson SJ**, Gdovin JR, Williams CC, Eason JD, Luginsland LA, Hill CM, Donahue PT, Hoke EL, Chander H, Garner JC. More Than a Foot Wedge – Golf Footwear and Postural Control. *NSCA Annual Meeting*, Las Vegas, NV. July 12-15. National Strength and Conditioning Association.
23. Williams CC, Gdovin JR, **Wilson SJ**, Hill CM, Luginsland LA, Hoke EL, Eason JD, Smidebush MM, Yarbrough AL, Wade C, Garner JC. Changes in swing kinematics in collegiate softball players over a fall softball season. *NSCA Annual Meeting*, Las Vegas, NV. July 12-15. National Strength and Conditioning Association
24. Hill CM, Williams CC, Gdovin JR, **Wilson SJ**, Eason JD, Hoke EL, Donahue PT, Wade C, Garner JC. The effects of various weighted implements on perception and bat angle in collegiate baseball players. *NSCA Annual Meeting*, Las Vegas, NV. July 12-15. National Strength and Conditioning Association
25. Donahue PT, Jackson, PM, **Wilson SJ**, Gdovin JR, Williams CC, Luginsland LA, Hill CM, Studzinski DL, Guarascio JJ, Garner JC. Effect of Offseason Training on Countermovement Jump Velocity in Division I Football Athletes. *NSCA Annual Meeting*, Las Vegas, NV. July 12-15. National Strength and Conditioning Association.



26. **Wilson SJ**, Chander H, Knight AC, Garner JC, Wade C, Gdovin JR, Hill CM, DeBusk H, Luginsland LA, & Carruth DC. Lower Extremity Kinematics in Military Footwear During Slip Events. *41st Annual Meeting of the American Society of Biomechanics*, Boulder, CO, August 8-11, 2017
27. Luginsland LA, Chander H, Wade C, Garner JC, Eason JD, **Wilson SJ**, Gdovin JR, Hill CM, Knight AC, Carruth D. Influence of Occupational Footwear on Muscle Activity during a Simulated Extended Time-Duration. *41<sup>st</sup> American Society of Biomechanics (ASB) Annual Meeting*, Boulder, CO. August 8-11 2017.
28. **Wilson SJ**, Hill CM, Mouser JG, Williams CC, Luginsland LA, Donahue PT, Garner JC & Chander H. Can Automatic Postural Responses Be Learned? *Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting*, Chattanooga, TN. February 15-17 2018.
29. Williams, CC; Gdovin JR; **Wilson SJ**; Hill CM; Donahue, PT; Luginsland LA; Eason JD; Yarbrough AL; Wade C; Garner JC. Examining changes in bat angle at ball contact in collegiate softball players over a fall softball season. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, Tennessee February 15-17<sup>th</sup>.
30. Luginsland LA, Williams CC, Gdovin JR, **Wilson SJ**, Donahue PT, Hill CM, Eason JD, Yarbrough AL, Wade C, Garner JC. Changes in Bat Angle at Maximal Velocity in Collegiate Softball Players. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018.
31. Garner JC, Hill CM, **Wilson SJ**, Mouser JG, Williams CC, Luginsland LA, Donahue PT, Chander H. Influence of Repeated Motor Control Tests on Proximal Lower Extremity Musculature Activation. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018.
32. Donahue PT, **Wilson SJ**, Williams CC, Hill CM, Luginsland LA, and Garner JC. Positional Differences In Peak Power During Countermovement Vertical Jump In Professional Baseball Pitchers. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018.

33. Hill CM, **Wilson SJ**, Mouser JG, Williams CC, Luginsland LA, Donahue PT, Chander H. Impact Of Repeated Balance Perturbations On Lower Extremity Mean Muscle Activity. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018.
34. **Wilson SJ**, Donahue PT, Williams CC, Hill CM, Luginsland LA, Waddell DE, Chander H, Garner JC. Lead Leg Recovery Responses Between Individuals Who Fall and Recover After an Unexpected Slip. *42<sup>nd</sup> American Society of Biomechanics (ASB) Annual Meeting*, Rochester, MN, USA. August 8-11 2018.
35. Garner JC, Donahue PT, Williams CC, Hill CM, Luginsland LA, Waddell DE, Chander H, **Wilson SJ**. Postural Control Measures Between Individuals Who Fall and Recover After an Unexpected Slip. *42<sup>nd</sup> American Society of Biomechanics (ASB) Annual Meeting*, Rochester, MN, USA. August 8-11 2018.
36. **Wilson SJ**, Garner JC, Donahue PT, Williams CC, Hill CM, Waddell DE. The Possible Role of Corticospinal Pathway Demand in Slip Recovery Responses. *50<sup>th</sup> Biomedical Engineering Society (BMES)*, Atlanta, GA, USA. October 17-20, 2018. (*In-Review*)

#### **Research Collaborations:**

- Biomechanics Laboratory, Department of Health Sciences & Kinesiology, Georgia Southern University
- Applied Biomechanics Laboratory, Department of Health, Exercise Science & Recreation Management, The University of Mississippi
- University of Mississippi, School of Engineering
- University of Mississippi School of Business Administration
- University of Mississippi School of Pharmacy Administration
- Neuromechanics Laboratory, Department of Kinesiology, Mississippi State University
- Department of Industrial and Systems Engineering, Auburn University
- Department of Kinesiology, Missouri State University
- Department of Kinesiology and Health Promotion, Troy University

#### **Advising Experience:**

##### Sally Barksdale Honors College Undergraduate Research Thesis:

David May – Honor's Thesis - 2014-2015 (Graduated)

Alice McGee – Honor's Thesis - 2016-2017 (Graduated)

Last updated: 8/5/18

Jordan Colbert – Honor’s Thesis - 2016-2017 (Graduated)

## **PROFESSIONAL AFFILIATIONS**

2013-Present	American Red Cross
2015-Present	American College of Sports Medicine (ACSM)
2015-Present	American College of Sports Medicine (Southeast Regional Chapter) (SEACSM)
2015-Present	American Society of Biomechanics (ASB) (Peer-Review Membership)
2017-Present	National Strength and Conditioning Association (NSCA)

### **Manuscript Reviewer:**

Strength and Conditioning Journal (2016-Present)  
International Journal of Exercise Science (2017-Present)

## **LABORATORY COMPETENCIES**

1. Exercise Prescription
2. Muscular Strength Testing
3. Extensive Weight Training Experience
4. Electromyography
5. VO2max Testing
6. Vicon Motion Capture Testing
7. Neurocom Equitest Balance Testing
8. Data entry/statistical analysis (SPSS)
9. First Aid/CPR/AED Certified (American Red Cross)
10. First Aid/CPR/AED Instructor Certified (American Red Cross)

### **Services:**

#### **Departmental:**

2014-Present Academic Advisor for HESRM undergraduate students

#### **External:**

2014-2015 University of Mississippi RebelWell Wellness on Wheels  
Health Fair event coordinator

2014-2015 Graduate Student Counsel Senator - University of Mississippi

2016-2017 Lecture to University of Mississippi Staff on Office Ergonomics

2015-2017 Judge for the North Mississippi Regional Science Fair

Last updated: 8/5/18

### **AWARDS AND RECOGNITIONS:**

- 2015-2016 University of Mississippi, Health Exercise Science, and Recreation Management - Graduate Achievement Award
- 2015-2016 University of Mississippi 3-Minute Thesis 2<sup>nd</sup> Place PhD Student
- 2014-2015 University of Mississippi 3-Minute Thesis Finalist
- 2014-2015 University of Mississippi Annual Graduate Student Council Research Forum – Third place winner in podium competition
- Winner of the Student of the Month, School of Applied Sciences – April 2016

### **MENTORSHIP**

2012-Present          John C. Garner, III, PhD, CSCS

2012-Present          Dwight E. Waddell, PhD

## **Professional References:**

John C. Garner, III, PhD, CSCS  
Department Chair/Professor  
Department of Kinesiology and Health Promotion  
Troy University  
[jcgarner@troy.edu](mailto:jcgarner@troy.edu)  
(334) 670-3443

Dwight E. Waddell, PhD  
Associate Professor of Electrical Engineering  
Program Director, Biomedical Engineering  
Department of Engineering  
University of Mississippi  
[waddell@olemiss.edu](mailto:waddell@olemiss.edu)  
(662) 915-7407

Harish Chander, PhD  
Assistant Professor of Biomechanics  
Co-Director: Neuromechanics Laboratory  
Department of Kinesiology  
Mississippi State University  
[hchander@colled.msstate.edu](mailto:hchander@colled.msstate.edu)  
(662) 202-7977

John P. Bentley, PhD  
Chair and Professor of Pharmacy Administration  
School of Pharmacy  
University of Mississippi  
[phjpb@olemiss.edu](mailto:phjpb@olemiss.edu)  
(662) 915-7114

Christopher Black, PhD  
Assistant Professor of Exercise Physiology  
Department of Health and Exercise Science  
The University of Oklahoma  
[cblack@ou.edu](mailto:cblack@ou.edu)  
(405) 325-7668