# Christopher M. Wilburn, PhD

School of Kinesiology 301 Wire Road Auburn, AL 36849 Email: czw0043@auburn.edu

## **EDUCATION**

#### Ph.D. Auburn University, Auburn, Alabama Kinesiology

Concentrated in Biomechanics

Dissertation: The Influence of Foot Type on Propulsion Mechanics and the Mechanical Properties of the Achilles Tendon in Jumping and Locomotive Tasks

August 2017

## M.Ed. Auburn University, Auburn, Alabama Exercise Science

Concentrated in Biomechanics August 2014

## **B.A.** Morehouse College, Atlanta, Georgia

Kinesiology, Sports Science and Physical Education, *Magna Cum Laude* August 2013

#### PROFESSIONAL EXPERIENCE

Auburn University, Auburn, Alabama Assistant Clinical Professor	August 2017-present
<b>Auburn University</b> , Auburn, Alabama Graduate Director of Sports Biomechanics Laboratory	August 2016 –August 2017
<b>Auburn University,</b> Auburn, Alabama Graduate Teaching Assistant	May 2013-August 2017

**Auburn University,** Auburn, Alabama September 2013-August 2014 Graduate Assistant- Student- Athlete Tutor

#### RESEARCH SCHOLARSHIP

#### **Publications**

Iso-Ahola, S.E., Dotson, C.O., Jagodinsky, A.E., Clark, L.C., Smallwood, L.L., **Wilburn, C.,** Weimar, W.H., & Miller, M.W. (2016). Improving performance by anchoring movement and "nerves." *Human Movement Science*, 49, 239-247

#### Publications in Review

Price, S.L., Williams, R., **Wilburn, C.M.**, Williams, P.T., Wadsworth, D.D., Weimar, W.H., Russell, J.A., & Rudisill, M.E. Promoting Diversity and Inclusion: Developing Partnerships Between HBCU and PWI.

#### **Grant Activity**

- Weimar, W.H. & **Wilburn, C.M.** (October 2015). Foot Health in Under-represented Youth. Auburn University Office of University Outreach and Engagement. Funding Amount: \$16,087. (Rejected)
- Hendricks, C.S. (Principal), Popoola, S., & **Wilburn, C.M.** (May 2015). Auburn University: Taking "It" To the People Southern Style. Auburn University Office of Outreach. Funding Amount: \$10,000.
- Hendricks, C.S. (Principal), Popoola, S., & **Wilburn, C.M.** (October 2014). Auburn University: Taking "It" To the People Southern Style. Auburn University Office of Outreach. Funding Amount: \$10,000.
- Hendricks, C.S. (Principal), Popoola, S., & **Wilburn, C.M.** (October 2013). Auburn University: Taking "It" To the People Southern Style. Auburn University Office of Outreach. Funding Amount: \$10,000.

#### Presentations: Referred & Invited Paper Presentations & Symposia

- Wilburn, C.M., Fox, J.W., Jagodinsky, A.E., Decoux, B.E., Williams, P. T., Brewer, L.E., Smallwood, L.L., Moore, N.H., Kitchens, M.W., & Weimar, W.H.. (2017). The Influence of Sock Type and Lacing Strategy on the Center of Pressure in Walking Gait. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO*.
- Williams, P.T., **Wilburn, C.M.**, Dupiton, M.E., Morris, M.A., Mcroy, J.E., Price, S.L., & Weimar, W.H. (2017). Foot Morphology of School Aged Children in A Developmental Research School. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO.*

- Decoux, B.E., **Wilburn, C.M.**, Williams, P.T., Weimar, W.H., Morris, M.A., Dupiton, M.E., & Price, S.L. (2017). Assessment of Gait Harmony in Elementary School Minority Students Using a Golden Ratio-Centered Approach. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO.*
- Brewer, L.E., Decoux, B.E., **Wilburn, C.M.,** Kitchens, M.W., Moore, N.H., Williams, P.T., Wire, N., & Weimar, W.H. (2017). Effect of Load Position During Stance Phase of Gait During Load Carriage. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO.*
- Moore, N.H., Kitchens, M.W., **Wilburn, C.M.**, Smallwood, L.L, Brewer, L.E., Decoux, B.E., Williams, P.T., & Weimar, W.H. (2017). Post Activation Potentiation Effects on the Amortization Phase of the Vertical Jump. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO.*
- Kitchens, M.W., Moore, N.H., **Wilburn, C.M.**, & Weimar, W.H. (2017). Effect of Postactivation Potentiation on Peak Power in a Vertical Jump. *Poster submitted for acceptance at the American Society of Biomechanics Annual Conference, Boulder, CO.*
- Wilburn, C.M., Fox, J.W., Jagodinsky, A.E., Decoux, B.E., Williams, P. T., Brewer, L.E., Smallwood, L.L., Moore, N.H., Kitchens, M.W. & W.H. Weimar. (2017). The Interaction of Arch Height Stiffness and Center of Pressure Mediolateral Deviation in Different Sock Types. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Decoux, B.E., **Wilburn**, **C.M.**, Brewer, L.E., Fox, J.W., Jagodinsky, A.E., Williams, P. T., Smallwood, L.L., Moore, N.H., Kitchens, M.W. & W.H. Weimar. (2017). Investigation of Static Versus Dynamic Arch Height Stiffness and Bilateral Symmetry During Barefoot Walking. *Poster to be presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Williams, P. T., **Wilburn**, **C.M.**, Dupiton, M.E., Morris, M.A., McRoy, J.E., Price, S.L., Smallwood, L.L., Kitchens, M.W., Moore, N.H., Decoux, B.E., Brewer, L.E., & Weimar, W.H. (2017). Arch Height Stiffness and Arch Height Index Across Grades. *Poster to be presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Kitchens, M.W., Jagodinsky, A.E., **Wilburn**, C.M., Moore, N.H., Bois, K.R., Bois, & Weimar, W.H. (2017). The Influence of an Isometric Squat on Vertical Jump. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.

- Moore, N.H., Kitchens, M.W., Brewer, L.E., Decoux, B.E., **Wilburn**, **C.M.**, Smallwood, L.L., Williams, P. T., & Weimar, W.H. (2017). Influence of Preparatory Arm Motion on Running Acceleration. *Poster to be presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Smallwood, L.L., Williams, P. T., Moore, N.H., Kitchens, M.W., **Wilburn**, **C.M.**, & Weimar, W.H. (2017). Interaction of High Heel Shoe Insert During Gait. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Price, S.L., Weimar, W. H., Wadsworth, D., **Wilburn, C.M.**, Williams, P.T., & Rudisill, M.E. (2017). Research Collaborations between Majority and Minority Serving Institution: Auburn University and Florida A&M University makes it happen *Round Table Discussion presented at American Kinesiology Leadership Workshop*, Westlake, TX.
- Rehm, J., Jagodinsky, A., **Wilburn, C.,** Smallwood, L., Wright, T., Windham, J, & Weimar. W. (2016) Measuring trunk stability for wheelchair basketball classification, North American Federation of Adapted Physical Activity 2016 Symposium, Edmonton, Canada.
- Rehm, J., Jagodinsky, A., **Wilburn, C.,** Smallwood, L., Wright, T., Windham, J, & Weimar. W. (2016) Measuring volume of action for wheelchair basketball classification, North American Federation of Adapted Physical Activity 2016 Symposium, Edmonton, Canada.
- Iso-Ahola, S. E., Jagodinsky, A. E., Clark, L. C., Smallwood, L. L., **Wilburn, C.,** Weimar, W. H., Dotson, C. O., & Miller, M. W. (2016). Improving performance by anchoring movement and "nerves". *Poster presented at the North American Society for the Psychology of Sport and Physical Activity Annual Meeting*, Montreal, Canada.
- Wilburn, C.M., Fox, J.W., Nabity, C.E., Javage, E.A., Jagodinsky, A.E., & Smallwood, L.L. (2016). Quantifying the Effects of Athletic Socks on Foot Function During Gait. *Orally presented at the Auburn University: This is Research Student Annual Symposium.* Auburn University
- Nabity, C.E., **Wilburn, C.M.**, Fox, J.W., Javage, E.A., Jagondinsky, A.E., & Smallwood, L.L. (2016). Influence of Sock Type on Gait Parameters. *Poster presented at the Auburn University: This is Research Student Annual Symposium*. Auburn University
- Javage, E.A., Wilburn, C.M., Fox, J.W., Nabity, C.E., Jagodinsky, A.E., & Smallwood, L.L. (2016). The Effect of an Alternative Lacing Strategy on Gait Parameters. Poster presented at the Auburn University: This is Research Student Annual Symposium. Auburn University

- Wilburn, C.M., Fox, J.W., Jagodinsky, A.E., Nabity, C.E., Javage, E.A., Smallwood, L.L., Williams, P.T., Moore, N. H., Kitchens, M.W., Bois, K.R., & Weimar, W.H. (2016). The influence of Sock Type on Foot Function During Walking Gait. *Orally presented at National Black Graduate and Professional Student Association Annual Conference. Houston, TX*.
- Wilburn, C.M., Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., Moore, N.H., Kitchens, M.W., Bois, K. R., Williams, P.T., & Weimar, W.H. (2016) The Impact of Sock Type on the Center of Pressure and Spatio-Temporal Parameters of Gait. *Thematic poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Nabity, C.E., **Wilburn, C.M**, Fox, J.W., Javage, E.A., Jagodinsky, A.E., Smallwood, L.L., & Weimar, W.H. (2016). Interaction of Arch Type and Various Socks on Center of Pressure Deviation. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Javage, E.A, **Wilburn, C.M.**, Fox, J.W., Nabity, C.E., Jagodinsky, A.E., Smallwood, L.L., & Weimar, W.H. (2016). The Effect of Arch Type and Sock Type During Shod Gait. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, SC.
- Moore, N.H., **Wilburn, C.M.,** Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., Kitchens, M.W., Bois, K. R., Williams, P.T., Brewer, J.M. & Weimar, W.H. (2016). The Impact of Athletic and Cotton Socks on Toe In and Out and Walking Velocity During Shod Gait. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Bois, K.R., **Wilburn, C.M.,** Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., Moore, N.H., Kitchens, M.W., Bois, K. R., Williams, P.T., Brewer, J.M. & Weimar, W.H. (2016). The Impact of Sock Type on Stride Length and Stride Frequency. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Kitchens, M.W., **Wilburn, C.M.,** Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., Moore, N.H., Bois, K. R., Williams, P.T., Brewer, J.M. & Weimar, W.H. (2016). Influence of Arch Height and Sock Type on Toe-In and Toe-Out During Gait. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Williams, P.T., **Wilburn, C.M., .,** Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., Moore, N.H., Kitchens, M.W., Bois, K. R., & Weimar, W.H. (Feb. 2016). The Effect of Arch Type and Sock Type During Shod Gait with a Runner's Loop Lacing Strategy. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.

- Jagodinsky, A.E, Costello, D., Wilburn, C.M., Smallwood, L.L, & Weimar, W.H. (2016).
  Assessment of Lower Extremity Joint Kinetics During Continuous Bout of Kettlebell Swings. Poster presented at Southeastern American College of Sports Medicine Annual Conference, Greenville, SC.
- Smallwood, L.L., **Wilburn, C.M.,** Jagodinsky, A.E., Moore, N.H., Kitchens, M.W., Bois, K.R., & Weimar, W.H. (2016). Interaction of Shoe Type on Stride Parameters. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Fox, J.W., Jagodinsky, A.E., **Wilburn, C.M.**, Smallwood, L.L., & Weimar, W.H. (2016). Force Capacity Increases With Leg Extension. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., **Wilburn, C.M.**, & Weimar, W.H. (2015). Influence of a Self- Induced Drop on Vertical Jump Performance. *Poster presented at American Society of Biomechanics Annual Conference*, Columbus, OH.
- Smallwood, L.L., Jagodinsky, A.E., **Wilburn, C.M.**, & Weimar, W.H. (2015). Influence of Heel Type on Stride Length. *Poster presented at American Society of Biomechanics Annual Conference*, Columbus, OH.
- Jagodinsky, A.E., Wilburn, C.M., Smallwood, L.L. & Weimar, W.H. (2015). Fatigue Effects on Lower Extremity Coordination and Coordination Variability During Multi-joint Ballistic Movement. Poster presented at American Society of Biomechanics Annual Conference, Columbus, OH.
- Irwin, J.M, Rudisill, M.E., **Wilburn, C.M.**, & Weimar, W.H. (2015). Team Player: The Role of Balance in Development of Fundamental Motor Skills. A Pilot Study. *Orally presented at Auburn University: This is Research Student Annual Symposium*. Auburn, Alabama.
- Hendricks, C.S., Popoola, S., & **Wilburn, C.M.** (2015). Taking Health Promotion Self Care to People Southern Style. *Orally presented at Alabama State Nurse Association Elisabeth A. Morris Annual Clinical Session*. Montgomery, AL.
- Hendricks, C.S., Popoola, S., & **Wilburn, C.M.** (2015). Digital Signage Connecting Self-Care Health Promotion Outreach. *Orally presented at Auburn University Outreach Scholarship Annual Symposium*. Auburn, AL.
- Wilburn, C.M., Fox, J.W., Jagodinsky, A.E., Smallwood, L.L., & Weimar, W.H. (2015). Influence of Shoe Lacing Strategies on Center of Pressure Deviation. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Jacksonville, FL.

- Smallwood, L.L., Fox, J.W., Jagodinsky, A.E., **Wilburn, C.M.**, Weimar, W.H. (2015). Examination of Spatiotemporal Parameters Involving Shoe Lacing Strategies and Gait. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Jacksonville, FL.
- Hendricks, C.S., Popoola, S., & **Wilburn, C.M.** (2014). Using Translational Strategies & Technology to Promote healthy Lifestyles. *Orally presented at Biomedical Research Symposium and Phi-Zeta Research Day Annual Conference*. Tuskegee, AL.
- Hendricks, C.S., Popoola, S., & **Wilburn, C.M.** (2014). Taking "It" to the People Southern Style (AU: TIPSS). *Orally presented at Auburn University Research Week Annual Symposium*. Auburn, AL.
- Jagodinksy, A.E., Fox, J.W., Smallwood, L.L., **Wilburn, C.M.,** & Weimar, W.H. (2014). The Effect of Arch height and Stiffness on Center of Pressure Differences Between Shoe Lacing Strategies. *Poster presented at Southeastern American College of Sports Medicine Annual Conference*, Greenville, SC.
- Hendricks, C.S., Popoola, S., & Wilburn, C.M. (2014). AU TIPSS- Enhancing Outreach with Technology. *Orally presented at Auburn University Outreach Scholarship Annual Symposium*. Auburn, AL.

### **ACADEMIC AWARDS AND HONORS**

2015-2016 President's Graduate Opportunity Program, Auburn, Alabama \$20,000-Auburn University 2015 Diversity Travel Fellowship, American Society of Biomechanics Fellowship \$300 2014 Lila White Fellowship, Auburn, Alabama \$5,000- Auburn University 2014 Phi Kappa Phi Honor Society, Auburn, Alabama Auburn University 2013 Future Scholars Summer Bridge Research Program, Auburn, Alabama \$2,300 (via Charles Barkley Foundation)- Auburn University Samuel H. Archer Sr. "Big Boy Award, Atlanta, Georgia 2013 \$500- Morehouse College 2013 Phi Epsilon Kappa Fraternity, Morehouse College, Atlanta, Georgia

2012	Phi Beta Kappa	<b>Honor Society</b> ,	Morehouse	College, Atlanta,	Georgia
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## **2011 Oprah Winfrey Scholarship Program,** Atlanta, Georgia

\$25,000- Morehouse College

# TEACHING SCHOLARSHIP

#### **Undergraduate Courses Taught**

PHED 1003: Active Auburn PHED 1340: Weight Training

PHED 1410: Team Sports: Basketball

KINE 3003: Medical Terminology for Allied Health Professions

KINE 3620: Biomechanical Analysis of Human Movement

KINE 4563: Sport Technique and Movement Analysis

KINE 4640: Physical Conditioning and Speed

#### **Guest Presentations**

Wilburn, C.M. (2016) Kinesiology: It's Not Just an Ordinary Science. Phenix City Intermediate School Career Day. Phenix City, AL

**Wilburn, C.M.** (2015). The Lower Extremity and its Contributive Influence on Locomotive and Balancing Tasks. Langston University Kinesiology Class (via skype). Auburn, AL

**Wilburn, C.M.** (2015). Posture, Footwear and Physical Assessments. Auburn University Graduate and Professional Student Association Monthly Meeting. Auburn, AL.

#### PROFESSIONAL SERVICE

#### Professional, Community, National, & State Governance and Service Activity

2016	Manuscript Reviewer, Journal of Sport and Health Science
2016-2017	Judicial Chair, National Black Graduate Student Association
2016-2017	Mentor, Pick Elementary School, Auburn, Alabama
2013-2016	Movement Analyst, United States Army
2013-present	Movement Analyst, United States and International Athletes

#### Department, College, & University Governance and Service Activity

**2016-2017 Graduate Student Representative**, Auburn University School of Kinesiology Faculty Selection Committee

2016-2017	<b>Vice-President</b> , Black Graduate & Professional Student Association, Auburn University
2016	Graduate Student Research Initiative Representative, Auburn University -Florida A&M University -Morehouse College
2014-present	<b>Selection Committee Member</b> , Future Scholars Summer Bridge Research Program, Auburn University
2013-2015	Movement Analyst, Track and Field Team, Auburn University
2013-present	Movement Analyst, Auburn University - Swimming and Diving Team, -Summer Youth Swim Camps -Summer Youth Speed and Agility Camp
2013	President, James P. Haines Society, Morehouse College
2013	<b>President and Co-Charter Founder</b> , Phi Epsilon Kappa Fraternity, Morehouse College
2012	Vice-President, James P. Haines Society, Morehouse College

# PROFESSIONAL AFFLIATIONS & MEMBERSHIPS

2015	American Society of Biomechanics
2014	International Society for Posture and Gait Research
2013	American College of Sports Medicine