

Katherine L. Hsieh, BS

CONTACT INFORMATION

301 Freer Hall
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Urbana, IL 61801

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EDUCATION

University of Illinois at Urbana-Champaign 2016-Present
Doctor of Philosophy, Kinesiology
GPA: 3.97/4.0

University of Georgia 2011- 2015
Bachelor of Science, Exercise and Sports Science
GPA: 3.81/4.0; Presidential Scholar, Dean's List

RESEARCH EXPERIENCE

GRADUATE ASSISTANT 2016-Present
Motor Control Research Lab
University of Illinois at Urbana-Champaign
Advisor: Jacob J. Sosnoff, PhD

RESEARCH ASSISTANT 2015- 2016
Military Performance Lab
Brooke Army Medical Center/Center For the Intrepid
Henry M. Jackson Foundation, Fort Sam Houston, TX

UNDERGRADUATE RESEARCH ASSISTANT 2012-2015
Biomechanics Lab
University of Georgia
Advisor: Cathleen Brown Crowell, PhD
Thesis: Ankle Anterior Drawer Laxity and Stiffness via the LigMaster Arthrometer

SCHOLARY ACTIVITY

PUBLICATIONS

In Review

1. Sun R., **Hsieh K.L.**, & Sosnoff J.J. Fall risk prediction in multiple sclerosis using postural sway measures: A machine learning approach. *Medical Engineering and Physics*.
2. **Hsieh K.L.**, Wood T.A., An R., Trinh L., & Sosnoff J.J. Gait and Balance Impairments in Breast Cancer Survivors: A Systematic Review and Meta-analysis. *Archives of Physical Medicine and Rehabilitation*.

In Press

1. **Hsieh K.L.**, Fanning J.T., Rogers W.A., & Sosnoff J.J. Fall Risk mHealth App for Older Adults: A Development and Usability Study. *Journal of Medical Internet Research Aging*.

Accepted

1. **Hsieh K.L.**, Moon Y., Ramkrishnan V., Ratnam R., & Sosnoff J.J. Validating Virtual Time to Contact with Home Based Technology in Young and Older Adults. *Journal of Applied Biomechanics*. <https://doi.org/10.1123/jab.2018-0088>.
2. **Hsieh K.L.**, Roach K.L., Wajda D.A., & Sosnoff J.J. (2018). Smartphone Technology Can Measure Postural Stability and Distinguish Fall Risk in Older Adults. *Gait & Posture*, 67, 160-165.
3. **Hsieh, K.L.**, Sheehan, R.C., Wilken, J.M., & Dingwell, J.B. (2018). Healthy individuals are more maneuverable when walking slower while navigating a virtual obstacle course. *Gait & Posture*, 61, 466-472.
4. **Hsieh, K.L.**, Sun, R., & Sosnoff, J. J. (2017). Cognition is associated with gait variability in individuals with multiple sclerosis. *Journal of Neural Transmission*, 124(12), 1503-1508.
5. Roeing, K.L., **Hsieh, K.L.**, & Sosnoff, J. J. (2017). A systematic review of balance and fall risk assessments with mobile phone technology. *Archives of gerontology and geriatrics*, 73, 222-226.
6. Brown, C. N., Ko, J., Rosen, A. B., & **Hsieh, K.L.** (2015). Individuals with both perceived ankle instability and mechanical laxity demonstrate dynamic postural stability deficits. *Clinical Biomechanics*, 30(10), 1170-1174.

PRESENTATIONS

*denotes presenting poster, †denotes presenting talk

1. ***Hsieh K.L.**, Roach K.L., Wajda D.A., & Sosnoff J.J. (2018). Smartphone Technology Can Measure Postural Stability and Distinguish Fall Risk in Older Adults. *American Society of Biomechanics*. Rochester, MN.
2. ***Hsieh K.L.**, Trinh L., & Sosnoff J.J. (2018). The Romberg Test in Cancer Survivors with Neuropathy. *Progress in Clinical Motor Control*. State College, PA.
3. †Sun R., **Hsieh K.L.**, Mussad S., & Sosnoff J.J. (2018). Assessment of Postural Control in Multiple Sclerosis: Identification of Core Outcome Variables. *Rehabilitation in Multiple Sclerosis*. Amsterdam, Netherlands.

4. Wood T.A., **Hsieh K.L.**, Ballard R.A., An R., & Sosnoff J.J. (2018) A meta-analysis examining objective balance and gait measures following concussion symptom resolution. *Great Lakes Athletic Trainers Association Annual Meeting*, Wheeling, IL.
5. ***Hsieh K.L.**, Wood T.A., McDonagh D., Fanning J., Wajda D.A., & Sosnoff J.J. (2017). Usability of a Fall Risk Mobile Health Application in Older Adults. *Collaborations in Health, Aging, Research, and Technology*. Champaign, IL.
6. †**Hsieh K.L.** (2017). Tai Chi for Falls Prevention in Older Adults. *Falls: Prevention, Assessment, and Intervention*. Champaign, IL.
7. ***Hsieh K.L.** and Sosnoff J.J. (2017). Gait Variability is Associated with Reduced Cognitive Function in Individuals with Multiple Sclerosis. *American Congress of Rehabilitative Medicine*. Atlanta, GA.
8. ***Hsieh K.L.**, Moon Y., Ramkrishnan V., Ratman R., & Sosnoff J.J. (2017). Validating Virtual Time to Contact with Home-Based Technology. *International Society of Posture and Gait Research*. Fort Lauderdale, FL.
9. †**Hsieh K.L.**, Sheehan R.C., Ruble M.D., Dingwell J.B., & Wilken J.M. (2016). Individuals with Lower Limb Trauma Prioritize Stability over Maneuverability When Navigating a Virtual Obstacle Course. *Omer Day*. San Antonio, TX.
10. Samson C.O., **Hsieh K.L.**, & Brown C.N. (2015) Lateral ankle complex response to repeated mechanical laxity assessment. *International Ankle Symposium*. Dublin, Ireland.
11. Brown C.N., Samson C.O., **Hsieh K.L.**, & Ko J. (2015). Lateral Ankle Joint Complex Stiffness in Those with Chronic Ankle Instability. *International Ankle Symposium*. Dublin, Ireland.
12. ***Hsieh K.L.**, Ko J., Samson C.O., & Brown C.N. (2015). Functional Performance Test and BMI Scores in Adolescent Athletes with Chronic Ankle Instability. *Southeast Chapter American College of Sports Medicine*. Jacksonville, FL.
13. ***Hsieh K.L.**, Rosen A.B., Leblanc R., Fu Y.U., Simpson K.J., & Brown C.N. (2014). Effect of Patellar Tendon Straps on Knee Joint Moments During a Drop-Jump. *Southeast Chapter American College of Sports Medicine*. Greenville, SC.
14. Hovorka C., **Hsieh K.L.**, & Kogler G. (2014). Motion Control Validation of a Custom Ankle Foot Orthosis. *American Academy of Orthotists and Prosthetists*. Chicago, IL.

GRANTS

In Review

Hsieh K.L., Rogers W.A., & Sosnoff J.J. *Fall Risk Assessment with a Smartphone Application for Older Cancer Survivors*. National Institute of Health (National Cancer Institute). Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship. \$194,892.

TEACHING EXPERIENCE

TEACHING ASSISTANT

KIN 259: Motor Development and Control
University of Illinois at Urbana-Champaign

Fall 2017, Spring 2018

UIUC Teachers Ranked as Excellent - KIN 259

Spring 2018

ACQUIRED SKILLS

Software:

- Statistics (SPSS, SAS)
- Visual 3D Biomechanical Modeling Software
- MATLAB
- Java

Hardware:

- Vicon Nexus Motion Capture
- Cortex Motion Analysis Corporation
- Force Plates (Berotec, AMTI)
- Zeno & GAITRite
- CAREN– Computer Assisted Rehabilitation Environment

COMMUNITY INVOLVEMENT

Manuscript Reviewer:

- Journal of Biomechanics
- Gait and Posture
- Clinical Biomechanics
- PLOS One

Professional Memberships:

- American Congress of Rehabilitative Medicine
- American Society of Biomechanics
- International Society of Posture and Gait Research

Volunteer for National Multiple Sclerosis Society

2016-Present

- Head volunteer for annual MS walk in Urbana, IL

HONORS & AWARDS

Progress in Clinical Motor Control Workshop and Travel Award

2018

American Kinesiology Association Undergraduate Scholar

2015