CURRICULUM VITAE

Jonathan S. Lee-Confer, Ph.D.

April 2025

I. BIOGRAPHICAL INFORMATION

PERSONAL INFORMATION:

Institutional Address:	**University of Arizona** 1670 E. Drachman St., 920C Tucson, AZ 85719
Telephone:	(520) 626-6117
E-mail:	leeconfer@arizona.edu
ORCiD:	0000-0002-2112-9802
Company Address:	**Verum Biomechanics** 3661 N. Campbell Avenue Tucson, AZ 85719
Telephone:	(520) 820-7082
E-mail:	jonathan@verumbiomech.com

EDUCATION AND PROFESSIONAL APPOINTMENTS

EDUCATION:

2021 **Ph.D.**
University of Southern California, Los Angeles, CA
Department of Biokinesiology (Advisor: Dr. Christopher M. Powers)
Dissertation Title – The Biomechanical Role of the Upper Extremities During the Recovery of a Slip Perturbation
Funding: American Society of Testing and Materials

2014 **M.S.**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology (Advisor: Dr. Rodney Imamura)
Thesis Title – Biomechanical Gait Assessment of an Individual with FXTAS: A Case Study

2011 **B.S.**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology

CERTIFICATIONS:

Exp. 11/2027	**Institutional Review Board Members** *CITI Program*
Exp. 11/2027	**Social-Behavioral-Education (SBE) Comprehensive** *CITI Program*
Exp. 03/2026	**Information Privacy & Security (IPS)** *CITI Program*
Exp. 12/2026	**Certified Exercise Physiologist** *American College of Sports Medicine*
Exp. N/A	**Occupational Safety and Health Administration 30 General** *United States Department of Labor*

ACADEMIC APPOINTMENTS:

2023-present	**Assistant Professor** Department of Physical Therapy *University of Arizona*, Tucson, AZ
2023	**Adjunct Professor** Department of General Education *Arizona College of Nursing,* Tucson, AZ
2020-2022	**Adjunct Professor** Department of Kinesiology College of Health & Human Services *California State University, Sacramento*, Sacramento, CA
2021-2023	**Full-time Faculty** Department of General Education *Arizona College of Nursing,* Tucson, AZ
2020-2021	**Adjunct Faculty** Department of General Education *Arizona College of Nursing,* Tucson, AZ
2020-2021	**Visiting Scholar** Department of Systems & Industrial Engineering *University of Arizona*, Tucson, AZ
2018-2019	**Graduate Teaching Assistant** Division of Biokinesiology & Physical Therapy *University of Southern California*, Los Angeles, CA
2016-2018	**Graduate Research Assistant** Division of Biokinesiology & Physical Therapy *University of Southern California*, Los Angeles, CA

2017	**Lecturer** Division of Biokinesiology & Physical Therapy Division of Occupational Science and Occupational Therapy *University of Southern California*, Los Angeles, CA
2016	**Lecturer** Division of Biokinesiology & Physical Therapy Apple Sports College of Japan *University of Southern California*, Los Angeles, CA
2014-2016	**Graduate Teaching Assistant** Division of Biokinesiology & Physical Therapy *University of Southern California*, Los Angeles, CA
2013-2014	**Graduate Research Assistant** Department of Kinesiology *California State University, Sacramento*, Sacramento, CA
2012-2014	**Graduate Teaching Assistant** Department of Kinesiology *California State University, Sacramento*, Sacramento, CA
2009-2011	**Adjunct Instructor** Peer and Academic Resource Center *California State University, Sacramento*, Sacramento, CA

NON-ACADEMIC APPOINTMENTS:

2020-present	**Founder and Director of Biomechanics** *Verum Biomechanics*, Tucson, AZ
2015-2019	**Biomechanical Analyst** *University of Southern California*, Los Angeles, CA
2017-2018	**Biomechanical Consultant** *Semper Scientific*, Mission Viejo, CA
2012-2013	**Patient Services Representative** *Sutter Hospital*, Outpatient Physical Therapy, Sacramento, CA
2011-2012	**Rehabilitation Technician** *Kindred Hospital*, Richmond, VA
2009-2011	**Rehabilitation Technician** *Asian Community Center Nursing Home*, Sacramento, CA
2007-2008	**Evidence Processor - Intern** Law Practice and Support Division *California Office of the Attorney General*

2006-2007 **Coordinator - Intern**
Conference of Western Attorneys General
California Office of the Attorney General

HONORS, AWARDS, FELLOWSHIPS:

2022 Received the Research & Science Award from the Arizona Falls Prevention Coalition

2021 Received the Peak Performer Award from the Arizona College of Nursing

2006 Received the Certificate of Academic Achievement from the Dominican University in San Rafael, CA

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

2020-present American Society of Testing and Materials

2020-present ASTM Subcommittee F13 Pedestrian/Walkway Safety & Footwear

2020-present Arizona Falls Prevention Coalition

2014-present American Society of Biomechanics

2019-present International Society of Biomechanics

2024-present Society for Neuroscience

2018-2019 Neural Control of Movement Society

2014-2015 American College of Sports Medicine

2016-2017 European Society of Biomechanics

2014-2015 Biomedical Engineering Society

II. ADMINISTRATIVE AND SERVICE ACTIVITIES

UNIVERSITY AND ORGANIZATIONAL SERVICE:

CITY OF TUCSON

2024-present Commissioner on Disability Issues
Vice-Mayor Appointed, Ward 3

ARIZONA FALLS PREVENTION COALITION:

2021-2024 Secretary General

2021-2024 Chair of the Education Committee

2020-present Committee Member

ARIZONA COLLEGE OF NURSING:

2021-2023 Member Curriculum Committee Meeting

2021-2023 Subject Matter Expert for Fundamentals of Biology

2023 Institutional Review Board - Member

AMERICAN SOCIETY OF TESTING AND MATERIALS:

2024-present Vice Chair of Research for the F13.40 Subcommittee for Pedestrian/Walkway Safety and Footwear

2020-present Committee Member – Voting member

2020-present Committee Member on F13 Subcommittee for Pedestrian/Walkway Safety and Footwear

UNIVERSITY OF ARIZONA:

2023-present Club Advisor for the Physical, Occupational, and Speech Therapy (P.O.S.T.) Association

2023-present Search Committee for the College of Health Sciences

2021-present Biomechanics Representative for the Doctoral of Physical Therapy Program Curriculum Focus Group

UNIVERSITY OF SOUTHERN CALIFORNIA:

2018-2019 Organizer, National Biomechanics Day

2017-2018 Student Elect – Biomechanics Representative

TASK FORCE COMMITEES:

2024-current	ASTM F-1637-21 Task Force – As leader/chair of this task force, I facilitate monthly meetings with 18 individuals to break apart standard F1637 into new standards that are specific and smaller with the goal of getting the new standards adopted by federal agencies.
2023	ASTM F15.03 Task Force – develop methodologies for measuring the slip resistance of bathtubs with the US Consumer Product Safety Commission. This involves testing methods with the KSS Wessex Pendulum Tribometer and the Mark IIIb tribometer.
2023-present	Development of a new ASTM subcommittee within the ASTM subcommittee that will be designed for outreach to governmental agencies to adopt and codify ASTM standards.
2021-present	Arizona Senate Bill SB 1373 Task Force – Implement Senate Bill 1373 into educational practice. Managed educational content for health care facilities to distribute to all ~30,000+ Arizona care givers.
2016-2020	ASTM F2508-16e Task Force - developed new methodologies for revamping the original F2508 standard, searched and piloted new tiles (E, F, G, & H) to replace original tiles (A, B, C, & D), collect, sort and process data. This research is was officially passed in voting ballots to become the standard in January 2024.

PROFESSIONAL ACTIVITIES:

2024	**Lee-Confer, J.S.** (2024). ”Selecting the Right Biomechanical Expert: A Lawyer’s Guide.” *2024 State Bar of Arizona Expert Witness Guide Magazine*.

COMMUNITY SERVICE ACTIVITIES:

2016, 2020-2022	Crafted handwritten post cards and mailed them to individuals who were unsure of whether they would vote in the elections. Conducted phone calls from a phone bank to encourage individuals to exercise their right to vote.
2019	Coordinated and hosted a group of 34 students from diverse background from Miramar Campus High School to participate in National Biomechanics Day and gain hands-on experience with scientific tools related to their high-school course work.
2018	Organized the division-wide participation and engagement support for the annual Swim with Mike event hosted by the University of Southern California.

2017, 2018	Hosted summer sessions to provide engaging lectures with high school students and allow them to learn and use biomechanical instrumentation.
2014	Volunteered at the Special Olympics Southern California Plane Pull.
2008-2010	Served as summer Camp Counselor for elementary school children afflicted with Type 1 diabetes with the Kaiser Permanente Hospital.
2008-2011	Served as volunteer pianist at the Asian Community Center Nursing Home.

EDITORIAL ACTIVITIES:

SCIENTIFIC REVIEW FOR JOURNALS:

2024-present	Clinical Interventions in Aging
2024-present	Frontiers of Public Health
2024-present	Journal of Aging and Physical Therapy
2024-present	Royal Society Open Science
2024-present	Geriatric Orthopaedic Surgery & Rehabilitation
2024-present	Journal of Geriatric Physical Therapy
2024-present	Journal of Biomechanics
2023-present	Scientific Reports
2022-present	IEEE Transactions on Neural Systems & Rehabilitation Engineering
2021-present	Applied Ergonomics

III. SCHOLARLY ACTIVITIES

PUBLICATIONS:
h-index = 4 (Google Scholar)
**Asterisks indicate direct student mentee.*

PEER-REVIEWED JOURNAL ARTICLES – ORIGINAL RESEARCH:

Lee-Confer, J.S., Wayman, L.T.*, & Collete, D. (2025) The Effect of Particle Thickness, Particle Type, and Flooring on Tribological Measurements of Coefficient of Friction. *Journal of Forensic Sciences.* (Submitted 03/2025).

Lee-Confer, J.S., Lo, M.K.* & Troy, K.L. (2025) Age-Related Differences in Arm Acceleration and Center of Mass Control During a Slip Incident. *Scientific Reports* (In-Review 01/2025)
Journal Impact Factor (2022): 5.3

Lee-Confer, J.S. (2025) The Effect of Wood Chip Surface Depth on Peak Force During Impacts. *Frontiers of Environmental Health.* https://doi.org/10.3389/fenvh.2025.1557660
Journal CiteScore: 5.3

Lee-Confer, J.S. Wayman, L.T, & Renner, K.E. (2025) The Influence of Sand-Additives and Coating Application Techniques on the Coefficient of Friction on Douglas Fir Lumber. *Theoretical and Applied Ergonomics* (In-Review 01/2025)

Lee-Confer, J.S., Wayman, L.T.*, & Havens, K.L. (2024) High G-Forces in Unintentionally Improper Infant Handling: Implications for Shaken Baby Syndrome Diagnosis. *Forensic Sciences.* (In-Review 11/2024)
Journal CiteScore: 1.7

Lee-Confer, J.S. (2024) Strength in Arms: Empowering Older Adults Against the Risk of Slipping and Falling – A Theoretical Perspective. *Frontiers in Sports and Active Living*, https://doi.org/10.3389/fspor.2024.1371730.
Journal Impact Factor (2022): 2.7

Cronen, A., Moriarty, M., **Lee-Confer, J.,** & Renner, K. (2024) Validation of a Wireless Device-Driven Method of Estimating Caloric Expenditure during Running. *PLoS One.* (In-Review 06/2024)
Journal Impact Factor (2023): 2.9

Lee-Confer, J.S., Wayman, L.T.*, & Collete, D. (2025) The Effect of Particle Thickness, Particle Type, and Flooring on Tribological Measurements of Coefficient of Friction. *engRxiv.* (Submitted 02/2025).

Lee-Confer, J.S., Wayman, L.T.*, & Havens, K.L. (2024) High G-Forces in Unintentionally Improper Infant Handling: Implications for Shaken Baby Syndrome Diagnosis. *bioRxiv*. https://doi.org/10.1101/2024.10.31.621215

Lee-Confer, J.S. (2023) Strength in Arms: Empowering Older Adults Against the Risk of Slipping and Falling. *sportRxiv*. https://doi.org/10.51224/SRXIV.361

Lee-Confer, J.S., Lo, M.K. & Troy, K.L. (2023) Young adults accelerate their arms significantly faster and earlier than old adults resulting in improved center of mass dynamics during an overground slip perturbation. *bioRxiv.* https://doi.org/10.1101/2023.12.09.570848

Lee-Confer, J.S., (2023). Overground walking slip perturbations induce frontal plane motion of the trunk indicating that slips are not just a backwards but also a sideways loss of balance.

bioRxiv.
https://doi.org/10.1101/2023.11.25.568692

Lee-Confer, J. S., Finley, J. M., Kulig, K. & Powers, C. M. (2023). Reactive Responses of the Arms Increase the Margins of Stability and Decrease Center of Mass Dynamics During a Slip Perturbation. *Journal of Biomechanics*, 157, 11737
https://doi.org/10.1016/j.jbiomech.2023.111737
Journal Impact Factor (2022): 2.779

Lim, S., Luo, Y., **Lee-Confer, J.,** & D'Souza, C. (2023). Obstacle Clearance Performance in Individuals with High Body Mass Index. *Applied Ergonomics*, 106, 103879
https://doi.org/10.1016/j.apergo.2022.103879
Journal Impact Factor (2022): 3.940

Lee-Confer, J. S., Kulig, K., & Powers, C. M. (2022). Constraining the Arms During a Slip Perturbation Results in a Higher Fall Frequency in Young Adults. *Human Movement Science*, 86, 103016
https://doi.org/10.1016/j.humov.2022.103016
Journal Impact Factor (2022): 2.50

Lee-Confer, J. S., Bradley, N. S., & Powers, C. M. (2022). Quantification of Reactive Arm Responses to a Slip Perturbation. *Journal of Biomechanics*, 110967.
https://doi.org/10.1016/j.jbiomech.2022.110967
Journal Impact Factor (2022): 2.779

Blanchette, M. G., **Lee-Confer, J.**, Brault, J. R., Rutledge, B., Elkin, B. S., & Siegmund, G. P. (2022). Human Slip Assessment of Candidate Reference Surfaces for Walkway Tribometer Validation: An Update to Standard ASTM F2508. *Journal of Testing and Evaluation*, *50*(2). DOI: 10.1520/JTE20210240
Journal Impact Factor (2022): 1.264

PEER-REVIEWED JOURNAL ARTICLES – ORIGINAL RESEARCH (In-Preparation):

Lee-Confer, J.S. & Wayman, L.T. (2025) The Relationship Between Roughness and Coefficient of Friction on Sand Additive Treated Douglas Fir Lumber. *Ergonomics* (Anticipated Submission Date 04/2025)

Lee-Confer, J.S., Lo, M.K., Finley, J.M., & Powers, C.M. (2025). The effect of arm motion on whole-body angular momentum during a slip perturbation. *Journal of Biomechanics*. (Anticipated Submission Date 10/2025).

Lee-Confer, J.S., Liu, J., Nagamori, A., & Powers, C. (2026). The spinal cord, not the vestibular system, coordinates and initiates compensatory limb responses during slip incidents: Implications from an individual with a unilateral labyrinthectomy compared to healthy controls. *British Medical Journal*. (Anticipated Submission Date 01/2026).

Lee-Confer, J.S., Eichenlaub, E.K., & Franz, J.R. (2026) Arm motion during overground walking slip perturbations involves active muscle control. *Journal of Biomechanics.* (Anticipated Submission Date 02/2026).

Lee-Confer, J. S., Blanchette, M. & Powers, C. M. (2026). Sex-Differences in Friction Demands During Running and Cutting: Implications for Floor Safety Standards for Indoor Sports. *Journal of Testing and Evaluation*. (Anticipated Submission Date 03/2025).

PEER-REVIEWED INTERNATIONAL CONFERENCE PAPERS:

Lee-Confer, J., Lee, R.*, & Powers, C. (2022). Trunk Motion within the Frontal Plane is Induced During a Slip Incident. *World Congress of Biomechanics,* Taipei, Taiwan.

Lee-Confer, J., Lee, R.*, & Powers, C. (2022). Arm Motion Decreases Whole-Body Angular Momentum in the Frontal Plane During a Slip Perturbation. *World Congress of Biomechanics,* Taipei, Taiwan.

Lee-Confer, J., Kulig, K., Lo, M.*, & Powers, C. (2022). Arm Movements Reduce Center of Mass Excursion During a Slip Perturbation. *North American Congress on Biomechanics,* Ottawa, Canada.

Lee, J., Asplund, C.*, Vera, L.*, Ruegg, S.*, & Powers, C. (2019). Quantification of Arm Kinematics in Response to a Slip-Induced Perturbation. *International Society of Biomechanics, American Society of Biomechanics,* Calgary, Canada.

Lee, J., Asplund, C.*, Ruegg, S.*, Vera, L.*, & Powers, C. (2019). Are corrective muscle responses during a slip perturbation coordinated by the vestibular system? *Neural Control of Movement Society*, Toyama, Japan.

Lee, J., Dang, K.*, Cohen, A.*, & Powers, C. (2017). A comparison of two methods to assess EMG latencies following a slip perturbation. *European Society of Biomechanics,* Seville, Spain.

Lee, J., Dang, K.*, & Powers, C. (2017). Heel acceleration differentiates fallers from non-fallers following a slip perturbation. *European Society of Biomechanics*, Seville, Spain.

PEER-REVIEWED NATIONAL & LOCAL CONFERENCE PAPERS AND PRESENTATIONS:

Lee-Confer, J. & Childers, C. (2025) Turning the Tide on Falls: How Arms Are Changing the Game. *Combined Sections Meeting*. Houston, Texas, United States of America (Scheduled 02/2025)

Wayman, L. & **Lee-Confer, J.** (2025) Impact of Dry Contaminants on Slipping: Implications for Public Health. *Public Health Poster Forum.* Tucson, Arizona, United States of America (Submitted 02/2025)

Wayman, L., Havens, K., & **Lee-Confer, J.** (2025) High G-Forces in Unintentional Improper Infant Handling: Implications for Shaken Baby Syndrome. *American Society of Biomechanics.* Pittsburgh, Pennsylvania, United States of America (Submitted 02/2025)

Lee-Confer, J. (2024) Vestibular contributions to a slip perturbation. *Arizona American Physical Therapy Association Conference*, Tucson, AZ, United States of America

Lee-Confer, J., Helwig, M., Eggert, C., Garcia, D., Martin, R., Neff, A., & Spiess, C. (2024). The effect of grasping light objects on the motor control of the arms during gait. *Society for Neuroscience*, Chicago IL, United States of America.

Lee-Confer, J., Lo, M.*, & Troy, K. (2024). Impact of Arm Abduction Acceleration on Center of Mass Dynamics During Slips: A Comparative Study of Older and Younger Adults. *American Society of Biomechanics,* Madison, WI, United States of America.

Cronen, A., Moriarty, M., **Lee-Confer, J.,** & Renner, K. (2024) Validation of a Wireless Device-Driven Method of Estimating Caloric Expenditure during Running. *American Society of Biomechanics*, Madison, WI, United States of America.

Lee-Confer, J., Lo, M.*, & Troy, K. (2023). Young adults accelerate their arms significantly faster than older adults in response to a slip perturbation. *American Society of Biomechanics*, Knoxville, TN, United States of America.

Lee, J., Scher, I., Stepan, L., & Powers, C. (2019). The Effect of Ski Boots on Utilized Coefficient of Friction. *International Congress on Snow Sports Trauma and Safety,* Squaw Valley, CA, United States of America.

Lee, J., Dang, K.*, Asplund, C.*, & Powers, C. (2018). Arm Movements Increase Margins of Stability During a Slip Perturbation. *USC Jacqueline Perry Research Day.* Los Angeles, CA, United States of America.

Lee, J., Imamura, R., Merrier, N., & Shimada, S. (2015). Control of balance during quiet standing in an individual with FXTAS. *Biomedical Engineering Society Conference.* Tampa, FL, United States of America.

Lee, J., Imamura, R., Merrier, N., & Shimada, S. (2014). Fragile X-associated Tremor/Ataxia Syndrome. *Biomedical Engineering Society Conference.* San Antonio, TX, United States of America.

Lee, J. Fragile X-associated Tremor/Ataxia Syndrome. *California State University, Sacramento Research Symposium*. Sacramento, CA, United States of America

NEWS RELEASES / MEDIA

2025 "New study shows that a simple 10 cm increase in playground wood padding reduces children's impact force by 44%." EcoInventors, Available as of 04/05/2025
[Link]

2025 "Falling can be risky. Here's how to avoid it and what to do if it happens" The Guardian, Available as of 03/31/2025
[Link]

2025 "Falling can be risky. Here's how to avoid it and what to do if it happens" MSN, Available as of 03/31/2025
[Link]

2025 "Falling can be risky. Here's how to avoid it and what to do if it happens" Yahoo News, Available as of 03/31/2025
Click Here for Link

2025 "Falling can be risky. Here's how to avoid it and what to do if it happens" AOL, Available as of 03/31/2025
Click Here for Link

2024 "Preventing falls a deeply personal mission for researcher" University of Arizona, Health Sciences Office of Communications, Available as of 09/23/2024
[Link]

2024 "Advancing Research through Collaborative & Novel Technology: The Sensor Lab at the University of Arizona" Available as of 09/20/2024
[Link]

2024 "Expert Insights: Can arm strength prevent falls?" University of Arizona, College of Health Sciences, Available as of 08/08/2024.
https://www.youtube.com/watch?v=XsW2jTZQnfM&t=2s

2024 "A new perspective to prevent falls in older adults," University of Arizona, College of Health Sciences. Available as of 02/18/2024: https://healthsciences.arizona.edu/academics/college-of-health-sciences

2024 "Arm speed could be the key to preventing falls," YourLifeChoices. Available as of 01/22/2024:
https://www.yourlifechoices.com.au/health/aged-care/arm-speed-could-be-the-key-to-preventing-falls/

2023 "Slower arm speed may be why older people fall more easily after a slip," NewScientist. Available as of 12/27/2023:
https://www.newscientist.com/article/2409722-slower-arm-speed-may-be-why-older-people-fall-more-easily-after-a-slip/

2023 "Slower arm speed may be why older people fall more easily after a slip," LinxTechNews. Available as of 12/27/2023: https://linxtechnews.com/2023/12/27/slower-arm-speed-may-be-why-older-people-fall-more-easily-after-a-slip/

2022 "Now it's been researched: you stay upright better with your hands free," HS Tiede. Available as of 12/15/2022: https://www.hs.fi/tiede/art-2000009176268.html

2022 "Biomechanics, Now it's been researched: you stay upright better with your hands free," Pledge Times. Available as of 12/15/2022 https://pledgetimes.com/biomechanics-now-its-been-researched-you-stay-upright-better-with-your-hands-free/

PATENTS/INVENTIONS

2025 UA Fall Prevention Institute
University of Arizona Tech Launch
Case ID: UA25-080
Role: Inventor

UNIVERSITY DISSERTATIONS/THESES

Lee, J.S. The role of the Upper Extremities in the Recovery of Balance During a Slip Perturbation. (2021). *University of Southern California*. Los Angeles, CA, United States of America. https://digitallibrary.usc.edu/asset-management/2A3BF1WF3JS0

Lee, J.S. Biomechanical gait assessment on a patient with Fragle X-Associated Tremor/Ataxia Syndrome (FXTAS): a case study. (2014). *California State University, Sacramento.* Sacramento, CA, United States of America.
http://hdl.handle.net/10211.3/122092

GRANTS AND/OR CONTRACTS AWARDED:

EXTERNAL GRANTS (FEDERAL/CORPORATE FUNDING):

2024 **"Establishing Foundations for Fall Prevention"**
FY25 SensorLab Seed Grants
Role: Principal Investigator
Status: Awarded
Total Costs: $23,569.99

2024 **"Comparing bilateral exoskeleton footwear for balance, gait, fear of falling and user acceptance in older adults"**

National Institute of Health - National Institute on Aging, SBIR (PAR-23-231)
Score: N/A
Role: Co-investigator
Status: Submitted (Pending)
Total Costs: $240,000

2023 **"Comparing bilateral exoskeleton footwear for balance, gait, fear of falling and user acceptance in older adults"**
National Institute of Health - National Institute on Aging, SBIR (PAR-23-231)
Score: 31
Role: Co-investigator
Status: Not Funded
Total Costs: $240,000

2017-2019 **"Validation of Walkway Tribometers: A Reference Standard"**
American Society of Testing and Materials
Role: Co-Principal Investigator
Status: Awarded
Total Costs: $58,700

2018 **"Validation of Manufactured Ski Boots: Effects of Coefficient of Friction During Locomotion"**
Guidance Engineering
Role: Co-Principal Investigator
Status: Awarded
Total Costs: $7,000

2012-2014 **"Fragile X-Associated Tremor/Ataxia Syndrome"**
Medical Investigation of Neurodevelopmental Disorders Institute
Role: Co-Principal Investigator
Status: Awarded
Total Costs: $2,000

INVITED TALKS:

2025 **Lee-Confer, J.S.** Arming Against Falls: How Upper Limb Responses Can Help Prevent Injury. *Arizona Senior Academy.* Tucson, Arizona, United States of America (Scheduled 03/2025)

2025 **Lee-Confer, J.** & Childers, C. Turning the Tide on Falls: How Arms Are Changing the Game. *Combined Sections Meeting*. Houston, Texas, United States of America

2024 **Lee-Confer, J.** The Impact of Arm Training on Fall Prevention: A

Theoretical Perspective. *Northern Chapter Arizona Falls Prevention Coalition.* Northern Arizona, United States of America

2024 **Lee-Confer, J.** Understanding Vestibular System Contributions (or none?!) to Reactive Arm Responses to Slip Incidents. *Speech, Language & Hearing Sciences Conference.* Tucson, Arizona, United States of America

2024 **Lee-Confer, J.** A Biomechanical Overview of Gait: Implications for Individuals Walking on Sloped Surfaces and Roofs. *Asphalt Roofing Manufacturers Association, Health, Safety and Environment Section*. Indianapolis, Indiana, United States of America

2024 **Lee-Confer, J.** An Introduction to the Biomechanics of Gait: Walking, Slipping, Tripping and Misstepping. *ASTM F13 Subcommittee Annual Meeting, Learning Series.* Philadelphia, Pennsylvania, United States of America

2024 **Lee-Confer, J.** 5 things you should make sure your biomechanical expert should know. *Arizona Association for Defense Counsel*, Phoenix, Arizona, United States of America

2023 **Lee-Confer, J.** Reactive arm responses increase the margins of stability and decrease center of mass dynamics during a slip perturbation. *University of North Carolina at Chapel Hill,* Chapel Hill, North Carolina, United States of America

2023 **Lee-Confer, J.** Determining the safety of floors to prevent slip and falls – theory, applications, and implementation, *Arizona Falls Prevention Coalition,* Virtual, Arizona, United States of America

2023 **Lee-Confer, J.** How biomechanical experts should be measuring the slip-resistance of the floors. *State Bar of Arizona Convention*, Tucson, Arizona, United States of America

2022 **Lee-Confer, J.** What does the science say about slips? *Tucson Defense Bar*, Tucson, Arizona, United States of America

2021 **Lee-Confer, J.** The Biomechanics of Gait, Slips and Falls. *Columbia University*, New York City, New York, United States of America

2021 **Lee-Confer, J.** The Utility of the Arms for Balance During a Slip Perturbation. *Arizona Falls Prevention Coalition*, Arizona, United States of America

2019 **Lee-Confer, J.** The Neural Control of the Arms During a Slip Perturbation. *Teikyo University*, Tokyo, Japan

IV. TEACHING AND MENTORING ACTIVITIES

COURSES PRESENTED:

2024-present	**PSIO 442/542: Biomechanics of Human Movement** *University of Arizona*, Tucson, AZ Department of Physiology (Student Evaluations = 5.00/5.00)
2024-present	**PSIO 441: Musculoskeletal Kinesiology** *University of Arizona*, Tucson, AZ Department of Physiology (Student Evaluations = 4.96/5.00)
2023	**PSIO 495T: Musculoskeletal Kinesiology** *University of Arizona*, Tucson, AZ Department of Physiology
2020-2023	**BIO 202: Anatomy & Physiology II** *Arizona College of Nursing*, Tucson, AZ Department of General Education (Student Evaluations = 4.91/5.00)
2020-2023	**BIO 201: Anatomy & Physiology I** *Arizona College of Nursing*, Tucson, AZ Department of General Education (Student Evaluations = 5.00/5.00)
2020-2023	**BIO 189: Fundamentals of Biology** *Arizona College of Nursing*, Tucson, AZ Department of General Education (Student Evaluations = 4.83/5.00)
2022-2023	**PSY 230: Statistics** *Arizona College of Nursing*, Tucson, AZ Department of General Education (Student Evaluations = 5.00/5.00)
2023	**MAT 151: College Mathematics** *Arizona College of Nursing,* Tucson, AZ Department of General Education
2020-2022	**KINS 151a: Biomechanics** *California State University, Sacramento*, Sacramento, CA

Department of Kinesiology
(Student Evaluations = 4.81/5.00)

2020-2022 **KINS 151: Kinesiology**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology
(Student Evaluations = 4.60/5.00)

2018-2019 **PT 556: Disorders of the Musculoskeletal System**
University of Southern California, Los Angeles, CA
Division of Biokinesiology & Physical Therapy
(Student Evaluations = 4.43/5.00)

2014-2018 **PT 554: Analytical Anatomy (Biomechanics Laboratory Section)**
University of Southern California, Los Angeles, CA
Division of Biokinesiology & Physical Therapy
(Student Evaluations = 4.75/5.00)

2014-2018 **PT 514: Musculoskeletal Anatomy (Laboratory)**
University of Southern California, Los Angeles, CA
Division of Biokinesiology & Physical Therapy
(Student Evaluations = 4.67/5.00)

2012-2014 **KINS 151a: Biomechanics**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology

2012-2014 **KINS 151: Kinesiology**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology

2009-2011 **BIO 22: Anatomy**
California State University, Sacramento, Sacramento, CA
Department of Kinesiology
(Student Evaluations = 4.96/5.00)

Workshops and Tutorials Developed/Presented

2023 **Developing Your Personal Statement for Grants**
Arizona College of Nursing

2022 **How to Study Effectively**
Arizona College of Nursing

2022 **How to Craft a Strong Resume**
Arizona College of Nursing

2022	**APA Refresher** *Arizona College of Nursing*
2022	**Using Mendeley to Make APA Formatting Easy** *Arizona College of Nursing*
2021	**Creating a Blueprint for Your Writings** *Arizona College of Nursing*
2021	**Writing a Good Introductory Paragraph** *Arizona College of Nursing*
2021	**How to Conduct a Literature Search** *Arizona College of Nursing*
2018	**Tribometer Workshop** *University of Southern California*
2011	**Engaging Students in the Classroom** *California State University, Sacramento*
2010	**Activity-based Classrooms** *California State University, Sacramento*

GRADUATE AND UNDERGRADUATE STUDENTS MENTORED:

2024-present	Lila Wayman (University of Arizona)
2024-present	Matthew Moriarty (University of Arizona)
2024-present	Francisco Espinoza (University of Arizona), Masters Committee
2024-present	Ty Mellor (University of Arizona)
2024	Leah Rodriguez (University of Arizona)
2024	Christian Eggert (University of Arizona)
2024	Riley Martin (University of Arizona)
2024	Annelise Neff (University of Arizona)
2023	Evelyn Miller (University of Arizona)
2021-present	Matthew Lo (University of Arizona)

2021-2022	Rachel Lee (Division of Biokinesiology & Physical Therapy, USC)
2019-2020	Lauren Vera, DPT (Division of Biokinesiology & Physical Therapy, USC)
2019-2020	Sarah Ruegg, DPT (Division of Biokinesiology & Physical Therapy, USC)
2018-2019	Christopher Asplund, DPT (Division of Biokinesiology & Physical Therapy, USC)
2016-2018	Kaylee Dang, DPT (Division of Biokinesiology & Physical Therapy, USC)
2015-2016	Alex Cohen, DPT (Division of Biokinesiology & Physical Therapy, USC)

V. PROFESSIONAL DEVELOPMENTS

Conferences

2025	ASTM F13 Subcommittee Meeting, Toronto, ON, CN (Scheduled)
2025	American Society of Biomechanics, Philadelphia, PA, USA (Scheduled)
2025	University of Arizona Public Health Poster Forums, AZ, USA (Scheduled)
2025	ASTM F13 Subcommittee Meeting, Houston, TX, USA
2025	Combined Sections Meeting (APTA), Houston, TX, USA
2024	Society for Neuroscience, Chicago, IL, USA
2024	ASTM F13 Subcommittee Meeting, Philadelphia, PA, USA
2024	American Society of Biomechanics, Madison, WI, USA
2024	ASTM F13 Subcommittee Meeting, Louisville, KY, USA
2024	APTAAZ Fall Meeting, Tucson, AZ, USA
2024	Combined Sections Meeting (APTA), Boston, MA, USA
2023	American Society of Biomechanics, Knoxville, Tennessee, USA
2023	ASTM F13 Subcommittee Meeting, Toronto, Canada

2023	ASTM F13 Subcommittee Meeting, Virtual
2023	Arizona State Bar Convention, Tucson, Arizona, USA
2022	North American Congress on Biomechanics, Ottawa, Canada
2022	World Congress of Biomechanics Conference, Taipei, Taiwan
2022	Arizona College of Nursing Educators Conference, Virtual
2022	ASTM F13 Subcommittee Meeting, Seattle, Washington, USA
2022	ASTM F13 Subcommittee Meeting, Virtual
2022	ATI Champion Training, Virtual
2019	American Society of Biomechanics Conference, Calgary, Canada
2019	International Society of Biomechanics Conference, Calgary, Canada
2019	International Congress on Snow Sports Trauma and Safety Conference, Squaw Valley, California, USA
2019	Neural Control of Movement Conference, Toyama, Japan
2017	USC Dentistry Research Day, Los Angeles, California, USA
2017	European Society of Biomechanics Conference, Seville, Spain
2016	Jacqueline Perry Research Day, Los Angeles, California USA
2015	American Society of Biomechanics Conference, Columbus, Ohio, USA
2015	Dentistry Research Day, Los Angeles, California, USA
2015	Biomedical Engineering Society Conference, Tampa, Florida, USA
2014	American College of Sports Medicine Conference, San Diego, California, USA
2014	Jacqueline Perry Research Day, Los Angeles, California, USA
2014	Biomedical Engineering Society Conference, San Antonio, Texas, USA

Continuing Education

2025	Why Read When You Can Write? The ABCs of Authoring, Editing and Publishing Textbooks Presenters: Kristin Greewood, PT, DPT, Myla Quiben, PT, DPT, Rolando Lazaro, PT, DPT, PhD, Arvie Vitente, PT, DPT, MPH, PhD, and Kathryn Panasci, PT, DPT.
2025	Policing to Pedagogy: Incorporating the Use of AI to Enhance the Student Learning Experience Presenters: Aimee Perron, PT, DPT and Jessica Dunn, PT, DPT, MS
2025	Biomechanics Matters 3.0: Focus on Movement Presenters: Cara Lewis, PhD, Christopher Powers, PT, PhD, and Irene Davis, PhD
2024	Balance and Falls: Vision and Attention to Balance Presenters: Ashwini Sansare, PhD, John Jeka, PhD, Samuel Lee, PhD, Hendrik Reimann, PhD
2024	Non-linear analysis of gait: translating from the lab to clinical relevance Presenters: Lise Worthen, Chaudhari, PhD, Peter Fino, PhD, Nelson Glover, PhD, Meghan Kazanski, PhD, Kristen Renner, PhD
2024	Running a Research Lab Is Like Running a Small Business Presenters: David Alexander Sherman, PT, DPT, ATC, PhD, Jacob J. Capin, PT, DPT, MS, PhD, Lori Michener, PT, ATC, PhD, FAPTA, Stephanie Di Stasi, PT, PhD and Daniel Kenta White, PT
2024	Motor Versus Sensory Dysfunction for Balance Control After Mild Traumatic Brain Injury: Implications for Rehabilitation Presenters: Laurie Anne King, PT, PhD, Kody Campbell, Peter C Fino, PhD and Jennifer Louise Wilhelm, PT, DPT
2024	A Call for Physical Therapy Action on Hearing Loss, Balance Problems, and Fall Risk Presenters: Jennifer Lynn Kelly, PT and Anat Vilnai Lubetzky, PT, PhD
2024	The 5Ms of Geriatrics: The Missing Link in Movement System Framework Presenters: Myla Claire Quiben, PT, DPT, MS, PhD, Susan Joy Leach, PT, DPT, PhD, Marni Larkin, Gregory W. Hartley, PT, DPT, FAPTA, Kenneth L. Miller, PT, DPT, Laura Z. Gras, PT, DPT, DSc and Michelle M. Lusardi, PT, DPT, PhD, FAPTA
2024	Anticipatory Postural Control: Translating the Evidence into Clinical Practice

Presenters: Gay L. Girolami, PT, MS, PhD and Stacey A. Marguerite, PT, DPT

2023 The CDC's "STEADI" Toolkit in the Community Setting – Project "VIBE" Valley Initiative to promote Balance among Elders
Presenter: Tiffany Hughes, Ph.D.

2022 Whoa! Reactive balance training as a fall prevention intervention
Presenter: Michael Madigan, Ph.D.

2022 Human Motion Analysis with Wearables for Improved Health and Well-being
Presenter: Sol Lim, Ph.D.

2022 Impact of Ankle-Foot-Orthoses and Functional Electrical Stimulators, on Fall Outcomes in Individuals with Stroke
Presenter: Claire Honeycutt, Ph.D.

2022 Diversity and English Language Learners: Helping Students Succeed
Presenter: Karin J. Sherrill, RN, MSN, CNE, ANEF, FAADN

2022 Concept Mapping I: Why It's Essential for 21st Century Nursing Education
Presenter: Barbara L. Yoost, MSN, RN, CNE, ANEF

2022 Cultivating Meaningful and Engaging Online Discussion
Presenter: Virginia Wangerin, PhD, RN, CNE

2021 Contraception Pharmacology Update
Presenter: Gini Holter, DNP, APRN, FNP-BC

2021 Diabetes Mellitus: Pharmacological Management for Type 2
Presenter: Susan J. Kimble, DNP, RN, ANP-BC, FAANP